

# 171-002 TCP/IP Protokoll

- Messages should be sent as string
- Each field should be separated by ';'   
 Message frame example: "id;param1;param2"   
 z.B: "1;1;10"
- All messages should start with function ID
- The reply from shaker will have at first field the function ID which it is replying + 100.   
 z.B: Message ID=1 will have a reply ID=101
- Return values could be:
  - TCP\_REQUEST\_OK = 1   
 -> Request OK. Task was performed.
  - TCP\_MODE\_DISABLED = 2   
 -> TCP mode is disabled at WebGui settings.
  - TCP\_PARAM\_OUT\_OF\_RANGE = 4   
 -> One or more parameters is/are out of acceptable range.
  - TCP\_WEB\_LIGHT\_LOCK = 8   
 -> Light was previously turned on via WebGui.
  - TCP\_WEB\_OUTPUT\_LOCK = 16   
 -> Clip, Sequence or Bunker is already running via WebGui.
  - TCP\_SLOT\_UNDEFINED = 32   
 -> Request slot has no sequence saved on it.

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## Set Backlight

ID: 1

Parameters: - state: Set the light ON or OFF

```
values:    0 = OFF
           1 = ON
```

- level: Set the PWM level of light output.

NOTE: Works only if PWM is enabled, if not value 10 will be used.

```
values:    1 to 10, where 1 = lower PWM level and 10 = full PWM
```

- (optional)

```
timeout: Set a timeout to turn light off after X seconds. Default value =
0
```

```
values:    0    = Unlimited
           1...= Value in seconds
```

Return:

```
TCP_REQUEST_OK
TCP_PARAM_OUT_OF_RANGE
TCP_WEB_LIGHT_LOCK
TCP_MODE_DISABLED
```

Example:

```
Turn light on: "1;1;10"
Turn light on with 50% intensitivity and with timeout of 3 seconds:
"1;1;5;3"
Turn light off: "1;0;10"
```

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## Set Bunker

ID: 2

Parameters: - state: Set the bunker ON or OFF

```
values:    0 = OFF
           1 = ON
```

- (optional)

```
timeout: Set a timeout to turn bunker off after X seconds. Default value =
0
values:    0    = Unlimited
           1...= Value in seconds
```

Return:

```
TCP_REQUEST_OK
TCP_PARAM_OUT_OF_RANGE
TCP_WEB_OUTPUT_LOCK
TCP_MODE_DISABLED
```

Example:

```
Turn bunker on for 5 seconds: "2;1;5"
Turn off bunker: "2;0"
```

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## Get version

ID: 3

Parameters: - info: Describes which info should be sent

```
values:     "VERSION" = returns current software version
```

Return:

```
Current software version in string format. z.B: "3.0.0"  
TCP_PARAM_OUT_OF_RANGE  
TCP_MODE_DISABLED
```

Example:

```
Request software version: "3;VERSION" -> "103;3.0.0"
```

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## Get status

ID: 4

Parameters:

```
There are no parameters for this function
```

Return:

```
1 if Ready pin is set to TRUE  
0 if Ready pin is set to FALSE  
TCP_MODE_DISABLED
```

Example:

```
Request current Shaker state: "4"
```

---

## Run sequence (run sequence just once)

ID: 5

Parameters: - slot: Slot number which should be played

```
values:     1..31 = Slot number
```

Return:

```
TCP_REQUEST_OK
TCP_SLOT_UNDEFINED
TCP_PARAM_OUT_OF_RANGE
TCP_WEB_OUTPUT_LOCK
TCP_MODE_DISABLED
```

Example:

```
Play sequence on slot 23: "5;23"
```

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## Play sequence (run sequence in loop mode)

ID: 6

Parameters: - slot: Slot number which should be played

```
values:      1..31 = Slot number
```

Return:

```
TCP_REQUEST_OK
TCP_SLOT_UNDEFINED
TCP_PARAM_OUT_OF_RANGE
TCP_WEB_OUTPUT_LOCK
TCP_MODE_DISABLED
```

Example:

```
Play sequence on slot 23: "5;23"
```

---

## Stop Playing (works for sequence or clip)

ID: 7

Parameters:

```
There are no parameters for this function
```

Return:

```
TCP_REQUEST_OK
TCP_WEB_OUTPUT_LOCK
```

TCP\_MODE\_DISABLED

Example:

Stop current Sequence or Clip (started via TCP): "7"

---

## Set Clip (this will not start a clip, just set all values)

ID: 8

Parameters: - freq: Value for output frequency

values: 0.50...100.00 (Hz)

- amp1: Value for Channel's 1 amplitude

values: 0...100 (%)

- phs1: Value for Channel's 1 phase

values: 0...360 (°)

- amp2: Value for Channel's 2 amplitude

values: 0...100 (%)

- phs2: Value for Channel's 2 phase

values: 0...360 (°)

- amp3: Value for Channel's 3 amplitude

values: 0...100 (%)

- phs3: Value for Channel's 3 phase

values: 0...360 (°)

- amp4: Value for Channel's 4 amplitude

values: 0...100 (%)

- phs4: Value for Channel's 4 phase

values: 0...360 (°)

NOTE: All params values will be „clipped“ to fit inside valid ranges.

This means: If value is higher than max, then max value will be use  
If value is lower than min, then min value will be use

Return:

```
TCP_REQUEST_OK  
TCP_PARAM_OUT_OF_RANGE  
TCP_WEB_OUTPUT_LOCK  
TCP_MODE_DISABLED
```

Example:

```
Set a clip with Frequency = 88.65Hz  
Channel 1 Amplitude = 20%  
Channel 1 Phase = 0°  
Channel 2 Amplitude = 30%  
Channel 2 Phase = 90°  
Channel 3 Amplitude = 40%  
Channel 3 Phase = 180°  
Channel 4 Amplitude = 50%  
Channel 4 Phase = 270°  
"8;88.65;20;0;30;90;40;180;50;270"
```

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## Start Clip (with previously set values)

ID: 9

Parameters:

```
There are no parameters for this function
```

Return:

```
TCP_REQUEST_OK  
TCP_WEB_OUTPUT_LOCK  
TCP_MODE_DISABLED
```

Example:

```
Start clip using previously set values: "9"
```