# freETarget

Application Note: Multi-Function Switches

**SUMMARY**

freETarget supports a pair of push button switches that can be used to customize the operation of the unit while in the target holder.

**MULTIFUNCTION SWITCHES**

There are two switches that can be used interchangeably, ie what can be done with A can be done with B. The JSON string {“MFS”:VVVVV} controls the function of the switches in tap or hold as shown in Table 1. The functions available are shown in Table 2.

Table 1: MFS Control

|  |  |
| --- | --- |
| Value | Use |
| Vxxxx | Value controls Tap on Switch 2 (only 0-1-2 allowed) |
| xVxxx | Value controls Tap on Switch 1 |
| xxVxx | Value controls Hold on 1 & 2 |
| xxVx | Value controls Hold on Switch 2 |
| xxxxV | Value controls Hold on Switch 1 |

Table 2: MFS Values

|  |  |
| --- | --- |
| Value | Use |
| 0 | Tap to wake up from sleep |
| 1 | Paper feed witness paper |
| 2 |  |
| 3 |  |
| 4 | Send test string to PC for debugging |
| 5 | Put target to sleep or wake it up |
| 6 | Enable / Disable Tabata |
| 7 |  |
| 8 |  |
| 9 |  |

**OPERATION**

The operation of the switches are controlled by how long the switches are pressed for

Tap: Press switch for less than ½ second

Hold: Press and hold the switch for more than ½ second

**RESET**

When powering up the target holding the Multi-Function Switches can be used to override the operation of the unit as shown in Table 3.

Table 3: MFS Control on Reset

|  |  |
| --- | --- |
| Value | Use |
| Switch 1 & 2 | Reinitialize the persistent storage to factory settings |
| Switch 1 | Enable diagnostic trace |
| Switch 2 |  |

**LEDs**

The LEDs will cycle to until the switches are released and the target goes back into operation