



# Arlyn UpScale - REST HTTP API Reference

---

The Arlyn UpScale REST HTTP API is organized around [REST](#).

Our API has predictable resource-oriented URLs, accepts [form-encoded](#) request bodies, returns [JSON-encoded](#) responses, and uses standard HTTP response codes, and verbs.

The Arlyn UpScale REST HTTP API doesn't support bulk updates. You can work on only one object per request.

Current release version is 1.0.

## 1 URL and REST Resource Guidelines

- The URL is relative to `http://<IP Address of Scale>:[port number]/api/1.0`.
- The URL is case-insensitive.

<http://192.168.1.123:8080/api/1.0/weight>

is the same as

<http://192.168.1.123:8080/API/1.0/wEiGht>

- URL encoded parameters and JSON string are case-sensitive.  
*Correct:* `api/1.0/weight?Platform=2`  
*Incorrect:* `api/1.0/weight?platform=2`

## 2 HTTP Methods

- HTTP GET method is used for read resources, query strings is used for transfer parameters, response JSON string (case-sensitive).
- HTTP POST method is used for write or execute control commands, request body is used for transfer parameters can be URL encoded data (case-insensitive) or JSON string (case-sensitive). Query strings is not used.

## 3 Arlyn UpScale REST API

### 3.1 Weight

#### 3.1.1 Get Weight from the Scale

##### 3.1.1.1 HTTP Method: GET

**Description:** Get weight reading from scale platforms. Read only, GET Method only.

**Command:** weight

**URI:**

- `api/1.0/weight`
- `api/1.0/weight?Platform=[0~9]`

**Query Parameters:**

- Platform (optional)
- Platform number: 0 to 9 (default: 0)
  - 0: current display platform (on top platform)

- 1: platform one, first platform

### 3.1.1.2 HTTP Response: JSON

**Return:** Weight JSON string

```
public static class Weight {
    public double Weight;           //weight in unit based on net/gross
    public int Platform;           //0, 1, .., 9; 0 for current display platform(on top platform)
    public String Unit;           //lb, g, kg, oz, ...
    public double Tare;           //tare in unit
    public boolean Gross;         //true: gross weight, false: net weight
    public boolean Stable;        //stable indicator
}
```

### 3.1.1.3 Examples

#### 3.1.1.3.1 Browser

- **Parameters:** None
- **Description:** Returns “top platform” weight on screen.
  - **Entry:** <http://192.168.1.123:8080/api/1.0/weight>
  - **Response:** {"Gross": false, "Platform":1, "Tare":102.4, "Unit":"oz", "Weight":22.78}
- **Parameters:** Platform=?
- **Description:** Obtain the weight from the specified platform.
  - **Entry:** <http://192.168.1.123:8080/api/1.0/weight?Platform=1>
  - **Response:** {"Gross": false, "Platform":1, "Tare":102.4, "Unit":"oz", "Weight":22.78}

#### 3.1.1.3.2 Using curl

- **Parameters:** None
- **Description:** Returns “top platform” weight on screen.
  - **Entry:** curl -G <http://192.168.1.123:8080/api/1.0/weight>
  - **Response:** {"Gross": false, "Platform":1, "Tare":105.75, "Unit":"oz", "Weight":22.819}
- **Parameters:** Platform=?
- **Description:** Obtain the weight from the specified platform.
  - **Entry:** curl -G <http://192.168.1.123:8080/api/1.0/weight -d Platform=1>
  - **Response:** {"Gross": false, "Platform":1, "Tare":105.75, "Unit":"oz", "Weight":22.819}

## 3.2 Unit

### 3.2.1 Get Current Unit of the Scale

#### 3.2.1.1 HTTP Method: GET

**Description:** Get the current Unit setting on the scale.

**Command:** unit

**URI:**

- api/1.0/unit
- api/1.0/unit?Platform={0~9}

**Query Parameters:**

- Platform (optional)
- Platform number: 0 to 9 (default: 0)
  - 0: current display platform (on top platform)

- 1: platform one, first platform

### 3.2.1.2 HTTP Response: JSON

**Return:** Unit JSON string

```
public static class Unit {
    public String Unit = "";           //g, gram, kg, lb, oz...
    public int Platform;              //0, 1...
}
```

### 3.2.1.3 Examples

#### 3.2.1.3.1 Browser

- **Parameters:** None
- **Description:** Returns “top platform” unit on screen.
  - *Entry:* <http://192.168.1.123:8080/api/1.0/unit>
  - *Response:* {"Platform":1,"Unit":"oz"}
- **Parameters:** Platform=?
- **Description:** Obtain the unit from the specified platform.
  - *Entry:* <http://192.168.1.123:8080/api/1.0/unit?Platform=2>
  - *Response:* {"Platform":2,"Unit":"g"}

#### 3.2.1.3.2 Using curl

- **Parameters:** None
- **Description:** Returns “top platform” unit on screen.
  - *Entry:* curl -G <http://192.168.1.123:8080/api/1.0/unit>
  - *Response:* {"Platform":1,"Unit":"kg"}
- **Parameters:** Platform=?
- **Description:** Returns the unit of the specified platform.
  - *Entry:* curl -G <http://192.168.1.123:8080/api/1.0/unit -d Platform=2>
  - *Response:* {"Platform":2,"Unit":"lb"}

## 3.2.2 Set Current Unit of the Scale

### 3.2.2.1 HTTP Method: POST

**Description:** Change the unit of the weight for current platform shown on screen by toggling to the next unit. This simulates the pressing of the UNIT button on screen.

**Command:** unit

**URI:**

- api/1.0/button/unit/click

**Query Parameters:** None

**Response:** None

### 3.2.2.2 Examples

#### 3.2.2.2.1 Browser

- **Parameters:** None
- **Description:** Toggle the unit of the “top platform”
  - *Entry:* <http://192.168.1.123:8080/api/1.0/button/unit/click>

- **Parameters:** Platform=?
- **Description:** Toggle the unit of the specified platform.
  - *Entry:* <http://192.168.1.123:8080/api/1.0/button/unit/click?Platform=2>

### 3.2.2.2 Using curl

- **Parameters:** None
- **Description:** Toggle the unit of the “top platform”
  - *Entry:* `curl -POST -H "Content-Type:application/json" http://192.168.1.123:8080/api/1.0/button/unit/click`
- **Parameters:** Platform=?
- **Description:** Toggle the unit of the specified platform.
  - *Entry:* `curl -POST -H "Content-Type:application/json" http://192.168.1.123:8080/api/1.0/button/unit/click?Platform=2`

## 3.3 Tare

### 3.3.1 Get Current Tare value of the Scale

#### 3.3.1.1 HTTP Method: GET

**Description:** Get the current Tare value on the scale.

**Command:** tare

**URI:**

- `api/1.0/tare`
- `api/1.0/tare?Platform=[0~9]`

**Query Parameters:**

- Platform (optional)
- Platform number: 0 to 9 (default: 0)
  - 0: current display platform (on top platform)
  - 1: platform one, first platform

#### 3.3.1.2 HTTP Response: JSON

**Return:** Tare JSON string

```
public static class Tare {
    public double Tare; //Tare in unit
    @SerializedName(value = "Platform", alternate = {"Pno", "Firstname"})
    public int Platform;
    public String Unit = ""; //g, gram, kg, lb, oz... //0, 1...
}
```

#### 3.3.1.3 Examples

##### 3.3.1.3.1 Browser

- **Parameters:** None
- **Description:** Returns “top platform” tare on screen.
  - *Entry:* <http://192.168.1.123:8080/api/1.0/tare>
  - *Response:* `{"Platform":1,"Unit":"oz", "Tare":100.123}`
- **Parameters:** Platform=?
- **Description:** Obtain the tare from the specified platform.
  - *Entry:* <http://192.168.1.123:8080/api/1.0/tare?Platform=2>

- *Response*: {"Platform":2,"Unit":"g", "Tare":10.12}

### 3.3.1.3.2 Using curl

- **Parameters**: None
- **Description**: Returns "top platform" tare on screen.
  - *Entry*: curl -G <http://192.168.1.123:8080/api/1.0/tare>
  - *Response*: {"Platform":1,"Unit":"oz", "Tare":100.123}
- **Parameters**: Platform=?
- **Description**: Obtain the tare from the specified platform.
  - *Entry*: curl -G <http://192.168.1.123:8080/api/1.0/tare> -d Platform=2
  - *Response*: {"Platform":2,"Unit":"g", "Tare":10.12}

## 3.3.2 Tare off the weight on the Scale

### 3.3.2.1 HTTP Method: POST

**Description**: Press the TARE button on the screen to tare off the weight on the scale.

**Command**: tare

**URI**:

- Press TARE button: [api/1.0/button/tare/click](http://192.168.1.123:8080/api/1.0/button/tare/click)

**Query Parameters**: None

**Response**: None

### 3.3.2.2 Examples

#### 3.3.2.2.1 Browser

- **Description**: Tare the weight off from the "top platform"
  - *Entry*: <http://192.168.1.123:8080/api/1.0/button/tare/click>

#### 3.3.2.2.2 Using curl

- **Description**: Tare the weight off from the "top platform"
  - *Entry*: curl -POST -H "Content-Type:application/x-www-form-urlencoded" <http://192.168.1.123:8080/api/1.0/button/tare/click>

## 3.3.3 Clear the Tare weight of the scale

### 3.3.3.1 HTTP Method: POST

**Description**:

- "Long press" the TARE button to clear out the tare weight on the scale.

**Command**: tare

**URI**:

- [api/1.0/button/tare/longclick](http://192.168.1.123:8080/api/1.0/button/tare/longclick)

**Query Parameters**: None

**Response**: None

### 3.3.3.2 Examples

#### 3.3.3.2.1 Browser

- **Description:** Clear the Tare weight on the scale.
  - *Entry:* <http://192.168.1.123:8080/api/1.0/button/tare/longclick>

#### 3.3.3.2.2 Using curl

- **Description:** Clear the Tare weight on the scale.
  - *Entry:* `curl -POST -H "Content-Type:application/x-www-form-urlencoded" http://192.168.1.123:8080/api/1.0/button/tare/longclick`

## 3.4 Gross/Net

### 3.4.1 Get the current “Gross” or “Net” weight on the scale

#### 3.4.1.1 HTTP Method: GET

**Description:** Get the current “Gross” or “Net” value on the scale.

**Command:** gross

**URI:**

- `api/1.0/gross`
- `api/1.0/gross?Platform=[0~9]`

**Query Parameters:**

- Platform (optional)
- Platform number: 0 to 9 (default: 0)
  - 0: current display platform (on top platform)
  - 1: platform one, first platform

#### 3.4.1.2 HTTP Response: JSON

**Return:** Gross/Net JSON string

```
public static class GrossNet {  
    public int Platform;    //Platform Number = 0, 1...  
    public boolean Gross;  //Gross (true) or Net (false)  
}
```

### 3.4.1.3 Examples

#### 3.4.1.3.1 Browser

- **Parameters:** None
- **Description:** Returns “top platform” Gross/Net indicator on screen.
  - *Entry:* <http://192.168.1.123:8080/api/1.0/gross>
  - *Response:* `{"Platform":1, "Gross":true}` // Platform is in “gross” mode.
- **Parameters:** Platform=?
- **Description:** Returns Gross/Net indicator of a particular platform
  - *Entry:* <http://192.168.1.123:8080/api/1.0/gross?Platform=2>
  - *Response:* `{"Platform":2, "Gross":false}` // Platform is in “net” mode.

#### 3.4.1.3.2 Using curl

- **Parameters:** None
- **Description:** Returns “top platform” Gross/Net indicator on screen.
  - *Entry:* `curl -G http://192.168.1.123:8080/api/1.0/gross`

- *Response*: {"Platform":1, "Gross":true} // Platform is in "gross" mode.
- **Parameters**: Platform=?
- **Description**: Returns Gross/Net indicator of a particular platform
  - *Entry*: curl -G <http://192.168.1.123:8080/api/1.0/gross -d Platform=2>
  - *Response*: {"Platform":2, "Gross":false} // Platform is in "net" mode.

## 3.4.2 Toggle Gross/Net Mode on the Scale

### 3.4.2.1 HTTP Method: POST

**Description**: Toggle the Gross/Net mode on the scale. This simulates the pressing of the GROSS/NET button on screen.

**Command**: gross

**URI**:

- api/1.0/button/gross/click

**Query Parameters**: None

**Response**: None

### 3.4.2.2 Examples

#### 3.4.2.2.1 Browser

- **Description**: Toggle the Gross/Net button of the "top platform"
  - *Entry*: <http://192.168.1.123:8080/api/1.0/button/gross/click>

#### 3.4.2.2.2 Using curl

- **Description**: Toggle the Gross/Net button of the "top platform"
  - *Entry*: curl -POST -H "Content-Type:application/x-www-form-urlencoded" <http://192.168.1.123:8080/api/1.0/button/gross/click>

## 3.5 Zero

### 3.5.1 Zero the Scale

#### 3.5.1.1 HTTP Method: POST

**Description**: Simulates the pressing of the ZERO button on screen.

**Command**: zero

**URI**:

- api/1.0/button/zero/click

**Query Parameters**: None

**Response**: None

### 3.5.1.2 Examples

#### 3.5.1.2.1 Browser

- **Description**: Zero the weight on the "top platform".
  - *Entry*: <http://192.168.1.123:8080/api/1.0/button/zero/click>

### 3.5.1.2.2 Using curl

- **Description:** Zero the weight on the “top platform”.
  - *Entry:* `curl -POST -H "Content-Type:application/x-www-form-urlencoded" http://192.168.1.123:8080/api/1.0/button/zero/click`

## 4 Appendix A

### 4.1 Unit String List

Unit strings are case-insensitive

#### Main Default Units - Active

- **lb:** lb, pound, pounds
- **kg:** kg, kilogram, kilograms
- **g:** g, gram, grams
- **oz:** oz, ounce, ounces

#### Other Units

//Troy Ounces

**otz:** otz

//Pennyweights

**pwt:** pwt

//Grains

**gr:** gr

//Gallons

**gal:** gal, gallon, gallons

//Percentage

**perc:** perc

//Newtons

**n:** N

//Jinn

**jn:** jn