

## TECHNICAL BULLETIN TB04-2021

10<sup>h</sup> February 2021

### Configuration and programming of TRON ML-series lights



When ordering Tron Lights, there are several varieties that are available pre-programmed. Please see Table 1 below for the standard versions.

If you need special programming or a variety of a standard model, please state base product, intensity, required IALA programming (simplified, on/off), as well as Daylight saving properties.

Use the form on page two of this bulletin to select custom programming, including the Sync Master.

More information on power consumption and further details on our product website at [www.jotron.com](http://www.jotron.com).

**Table 1: Standard ML lights.**

| Order No. | Type       | Color  | Intensity (Cd) | IALA/ Configuration | ON (ms) | OFF (ms) | Period | Flash/min |
|-----------|------------|--------|----------------|---------------------|---------|----------|--------|-----------|
| 86430     | ML-100     | White  | 5              | Fl 2.4s             | 500     | 1900     | 2,4    | 25        |
| 87331     | ML-100     | Yellow | 5              | Fl 2.4s             | 500     | 1900     | 2,4    | 25        |
| 87487     | ML-100     | Red    | 5              | Fixed               |         |          |        |           |
| 102082    | ML-100     | Red    | 5              | Fl 2.4s             | 500     | 1900     | 2,4    | 25        |
| 86431     | ML-200     | Yellow | 5              | Oc 2s*              | 1250    | 750      | 2      | 30        |
| 87802     | ML-200     | White  | 5              | Fl 2.4s             | 500     | 1900     | 2,4    | 25        |
| 101350    | ML-300 *   | White  | 5              | Fl 2.4s             | 500     | 1900     | 2,4    | 25        |
| 87332     | ML-300     | Yellow | 5              | Fl 2.4s             | 500     | 1900     | 2,4    | 25        |
| 87396     | ML-300     | Yellow | 15             | Oc 2s*              | 1250    | 750      | 2      | 30        |
| 87809     | ML-300     | Red    | 5              | Fl 3.75             | 500     | 2500     | 3      | 16        |
| 86433     | ML-EL-unit | Yellow | 5              | Oc 2s*              | 1250    | 750      | 2      | 30        |
| 87375     | ML-EL-unit | White  | 5              | Fl 2.4s             | 500     | 1900     | 2,4    | 25        |
| 87376     | ML-EL-unit | Red    | 5              | Fixed               |         |          |        |           |

All standard models:

- No synchronization.
- Daylight saving enabled, 50lux/150lux.

\* Fish farm Standard

## Special Configuration of TRON ML lights and Sync Masters.

Please state custom programming of the ML lights or Sync Masters. A complete order requires Base product, Intensity, required IALA programming, as well as Daylight saving properties.

Pcs: Number of units to order of each type.

Intensity: **1Cd, 2Cd, 5Cd, 10Cd, 15Cd.**

IALA/Config: State IALA Code and On/Off time in ms. (i.e: **FI2.4s 500/1900**)

Daylight saving: Selectable in 50lux increments, 100lux differing off/on value. Standard: **50lux/150lux.** Max 400lux/500lux

Sync/Group Id: None: **OFF**, On=Id (**1-19**). Sync Master is always enabled, default group ID=1.

Sync Role (ML lights only): **None/Master/Slave**

Sync Range (if applicable, Master only.): **Close/Standard/Extended.** Lights are close range only.

If the form is not used, please inform us of **all the configuration** in written form, based on the description above.

### Sync Master:

| Pcs. | Order no. | Type               | Intensity (Cd) | IALA/ Configuration | Daylight saving | Sync/ Group Id | Sync Range |
|------|-----------|--------------------|----------------|---------------------|-----------------|----------------|------------|
|      | 87466     | Sync Master ML-100 |                |                     |                 |                |            |
|      | 87803     | Sync Master ML-200 |                |                     |                 |                |            |
|      | 87926     | Sync Master ML-300 |                |                     |                 |                |            |

### Light buoys and EI units:

| Pcs. | Order no. | Type/Color        | Intensity (Cd) | IALA/ Configuration | Daylight saving | Sync/ Group Id | Sync Role |
|------|-----------|-------------------|----------------|---------------------|-----------------|----------------|-----------|
|      | 86430     | ML-100 White      |                |                     |                 |                |           |
|      | 87331     | ML-100 Yellow     |                |                     |                 |                |           |
|      | 87484     | ML-100 Red        |                |                     |                 |                |           |
|      | 87802     | ML-200 White      |                |                     |                 |                |           |
|      | 86431     | ML-200 Yellow     |                |                     |                 |                |           |
|      |           | ML-200 Red        |                |                     |                 |                |           |
|      | 86432     | ML-300 White      |                |                     |                 |                |           |
|      | 87332     | ML-300 Yellow     |                |                     |                 |                |           |
|      | 87809     | ML-300 Red        |                |                     |                 |                |           |
|      | 87375     | ML-EL-Unit White  |                |                     |                 |                |           |
|      | 87374     | ML-EL-Unit Yellow |                |                     |                 |                |           |
|      | 87376     | ML-EL-Unit Red    |                |                     |                 |                |           |
|      |           |                   |                |                     |                 |                |           |
|      |           |                   |                |                     |                 |                |           |

## Programming report samples:

Sync Master:

| Index | Version                       | Daylight Saving | Synchronisation | Role   | GroupId | Range          | Rf power | Candela | Flashes Per Minute | IALA Code                |
|-------|-------------------------------|-----------------|-----------------|--------|---------|----------------|----------|---------|--------------------|--------------------------|
| 001   | Sync Master unit version 5.12 | 50lux/150lux    | On              | Master | 1       | Standard range | 13.2dBm  | 15.0    | 30                 | Yellow 15Cd 1250ms/750ms |

Combined set of Sync Master and four lights:

| Index | Version                       | Daylight Saving | Synchronisation | Role   | GroupId | Range          | Rf power | Candela | Flashes Per Minute | IALA Code               |
|-------|-------------------------------|-----------------|-----------------|--------|---------|----------------|----------|---------|--------------------|-------------------------|
| 001   | Sync Master unit version 5.12 | 50lux/150lux    | On              | Master | 1       | Standard range | 13.2dBm  | 5.0     | 30                 | Yellow 5Cd 1250ms/750ms |
| 002   | Light unit version 7.32       | 50lux/150lux    | On              | Slave  | 1       |                | N/A      | 5.0     | 30                 | Yellow 5Cd 1250ms/750ms |
| 003   | Light unit version 7.32       | 50lux/150lux    | On              | Slave  | 1       |                | N/A      | 5.0     | 30                 | Yellow 5Cd 1250ms/750ms |
| 004   | Light unit version 7.32       | 50lux/150lux    | On              | Slave  | 1       |                | N/A      | 5.0     | 30                 | Yellow 5Cd 1250ms/750ms |
| 005   | Light unit version 7.32       | 50lux/150lux    | On              | Slave  | 1       |                | N/A      | 5.0     | 30                 | Yellow 5Cd 1250ms/750ms |

Set of four synchronized lights where one is master:

| Index | Version                 | Daylight Saving | Synchronisation | Role   | GroupId | Range       | Rf power | Candela | Flashes Per Minute | IALA Code               |
|-------|-------------------------|-----------------|-----------------|--------|---------|-------------|----------|---------|--------------------|-------------------------|
| 001   | Light unit version 7.32 | 50lux/150lux    | On              | Master | 1       | Close range | N/A      | 5.0     | 30                 | Yellow 5Cd 1250ms/750ms |
| 002   | Light unit version 7.32 | 50lux/150lux    | On              | Slave  | 1       |             | N/A      | 5.0     | 30                 | Yellow 5Cd 1250ms/750ms |
| 003   | Light unit version 7.32 | 50lux/150lux    | On              | Slave  | 1       |             | N/A      | 5.0     | 30                 | Yellow 5Cd 1250ms/750ms |
| 004   | Light unit version 7.32 | 50lux/150lux    | On              | Slave  | 1       |             | N/A      | 5.0     | 30                 | Yellow 5Cd 1250ms/750ms |

One standalone ML 200:

| Index | Version                 | Daylight Saving | Synchronisation | Role | GroupId | Range | Rf power | Candela | Flashes Per Minute | IALA Code                |
|-------|-------------------------|-----------------|-----------------|------|---------|-------|----------|---------|--------------------|--------------------------|
| 001   | Light unit version 7.32 | 50lux/150lux    | Off             |      |         |       | N/A      | 10.0    | 30                 | Yellow 10Cd 1250ms/750ms |