



Maintenance Guide

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1 Introduction

This document describes the maintenance requirements for the Luminous Textile. Most maintenance can be performed by local specialists. During maintenance, the Luminous Textile fragile cloth must be handled carefully, as well as the electronic parts that must be protected against ESD discharges.

1.1 Abbreviations

- ESD: Electro-Static Discharge
- LAN: Local Area Network
- PCB: Printed Circuit Board
- PSU: Power Supply Unit
- RMA: Return Material Authorization

1.2 Information

To order replacement parts it is important to always provide the serial number of the part that must be replaced.

1.2.1 Replacement policy

Products produced before 2015 week 48 must be upgraded with the following components in case of RGB Light Engine and/or other electrical failures:

- Replace all RGB light engines
- Cables
- Driver box

In case product is produced after 2015 week 48, the RGB Light Engines, driver box, PSU, player PCB, or SD card can be replaced independently.

If the product is produced after 2019 week 33, the product contains the latest version of the RBG Light Engines. The replacement part for products produced after 201933 is xxxxxx V2. If the product is produced before 2019 week 33 and after 205 week 48, order RGB Light Engines of type xxxxxx V1.

In case of fabric replacement, do not only replace front fabric, but also replace the diffuser fabric (two layers of fabric in total).

If the product is produced after 2019 week 22, the diffuser fabric is 20 mm longer. This is for easy fabric re-stretching if required.

Follow this link to order spare parts: https://share.lighting.com/sites/ TS1004021225472080427802/SitePages/Search%20results.aspx?Search=LTP

In case support is required contact the local Signify representative. Have the label information as given in section 2.2 available.

2 Technical product overview

2.1 System overview



Figure 1, The front of the Luminous Textile.



Figure 2, The rear of the Luminous Textile.

* Magnets may not be present on certain Luminous Textile sizes.

2.2 Serial numbers

The serial numbers of the Luminous Textile and the driver box are located on the rear of each Luminous Textile.



Figure 3, Label with serial numbers: Luminous Textile product (1) and driver box (2).

2.2.1 Luminous Textile identification and serial number

| | Model no: LLP115F1TTO102CPL2220W120000 |
|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Input:100-240V~50/60Hz AC output: 10A max t _a =35° | Made in Poland Сделано в Польше Виготовлено в Польше Өндіріс елі қаптамадан қараңыз Польше |
| EXECUTE: 201929031 | СССОСТИЛЬНИК Турақты шырағдан Світильник Світильник Світильник Світильник Світильник Світильник Світильник |

Figure 4, Label with Luminous Textile serial number (SN).

| Example serial number | 20 | 19 | 29 | 03 | 101 | 0001 |
|-----------------------|----------|------|------|--------|------|---------------|
| Meaning | Location | Year | Week | Day of | Туре | Unique serial |
| | | | | week | | number |

2.2.2 Driver box identification



Figure 5, Typical type identification of a driver box.

2.2.3 RGB Light Engine serial number



Figure 6, Label with RGB Light Engine serial number.

See section 2.9.2 The back of the RGB Light Engine for the location of the serial number (SN) at the RGB Light Engine.

| Example serial number | 20 | 18 | 34 | 03 | 560 | 0011 |
|-----------------------|----------|------|------|--------|------|---------------|
| Meaning | Location | Year | Week | Day of | Туре | Unique serial |
| | | | | week | | number |

2.2.4 PSU serial number

The serial number of the PSU is put on the side of the PSU close to the "Made in China" marking at the top label.



Figure 7, Serial number PSU.



2.3 Driver box: CE and CCC version

Figure 8, Driver box CE and CCC (open)

2.4 Driver box: UL version



Figure 9, Driver box UL (open)

2.5 Driver box: 24 V version



Figure 10, Driver box 24 V (open)

2.6 Details of the printed circuit board



➡ Note The printed circuit board layout can vary, depending on the product version.

2.7 LED status definitions

There are several LEDs located on the main PCB which can be used for fault reporting.

| PCB Status LED | LED color | Description | | |
|----------------------------|---------------------|-----------------------------------------------------|--|--|
| 24 V power indicators | Green | PSU active | | |
| (three LEDs marked +24V_n) | OFF | PSU not connected or defective | | |
| 5 V and 3.3 V status LED | Orange | OK, both 5 V and 3.3 V supply are present | | |
| | RED | Only 5 V present, 3.3 V not present | | |
| | OFF | No 5 V present | | |
| LED1 | Green | Microprocessor configured and power is sent to the | | |
| | | RGB Light Engines | | |
| | OFF | Microprocessor not configured | | |
| LED2 | Green flashing | Data is being sent to RGB Light Engines, flashes in | | |
| | | time with animation frame rate | | |
| | RED or RED flashing | Overcurrent occurred in RGB Light Engine | | |
| | OFF | Luminous Textile is in stop mode | | |
| LED3 | Green | Luminous Textile is in play mode | | |
| | | (24 V supplied to RGB Light Engine) | | |
| | OFF | Luminous Textile in stop mode | | |

2.8 Push-button functionality

There are two push buttons located on the main PCB.

- For firmware version 3.X.X, SW1 must be clicked and hold for about 10 seconds to factory reset the panel. Be careful since all settings are deleted. This can also be used to do a password reset after a password loss. For previous firmware versions contact your local Signify representative for a password or factory reset.
- SW2 is used during the production process. It is not in use.

2.9 RGB Light Engine

2.9.1 The front of the RGB Light Engine





Figure 13, The back of the RGB Light Engine

3 Diagnostics

For installations produced before 2015 week 48, it is advised to contact the local Signify representative for firmware upgrades.

For installations produced after 2015 week 48 no software updates are needed.

The following symptoms indicate a malfunctioning Luminous Textile:

- Luminous Textile does not light up
- Luminous Textile has one or more lines that do not light up
- Luminous Textile has one or more black RGB Light Engines
- The Luminous Textile does not synchronize with other Luminous Textiles
- No content can be uploaded to a Luminous Textile
- Remote control does not function

3.1 Luminous Textile does not light up

The Luminous Textile is connected but remains black in play mode.



Figure 14, Luminous Textile is black in play mode

3.2 Luminous Textile has one or more lines that do not light up



Figure 15, Luminous Textile has one or multiple black lines.



3.3 Luminous Textile has one or more black RGB Light Engines

Figure 16, Luminous Textile has one or multiple black RGB Light Engines

3.4 The Luminous Textile does not synchronize with other Luminous Textiles

Synchronize with the Luminous Textile stopped but it did previously.



Figure 17,1 Luminous Textile does not synchronize with other Luminous Textiles

3.5 No content can be uploaded to a Luminous Textile



It is not possible to upload content.

Figure 18, Luminous Textile cannot be uploaded with content

3.6 Remote control does not function

Luminous Textile does not respond to remote control.



Figure 19, Remote control

4 Repair

Keep the following in mind when performing repairs:

- · Maintain a clean work area.
- The working area must be flat. The Luminous Textile can be damaged when put on stands only.
- Use new white gloves when handling the Luminous Textile.
- Handle the Luminous Textile with care.
- Do not put any pressure on the textile.
- To protect the textile, remove sharp objects from the work area.
- The power must be disconnected during replacement of components or modules.
- All built-in ICs and many other semiconductors are susceptible to ESD damage. Take all required measures to prevent electrostatic discharges.
- Always disconnect a Luminous Textile from the mains before repair.
- Use only certified replacement components. Other components may damage the system and void the warranty. Signify accepts no liability in the event of such damage.



Figure 20, Luminous Textile repair position

Safety regulations require that after a repair the Luminous Textile must be completely reassembled, in the original condition. Pay attention to the following points:

- Route the wire harnesses correctly and secure them in place with the mounted cable clamps and/or tie-wraps.
- Check for damage to the mains/AC power cable.



4.1 Required tools

In this part of the manual a subset of the following tools are required for each specific task.

| Quantity | Item | Specification | Reference |
|-----------------------|------------------------|-----------------------------------------------------------------------------------------------------------|-----------|
| 4 pieces per meter | Z-clamps | Special for luminous textile (alternative: flat washers 10 × 1 mm) | A |
| 1 | Glue gun | | В |
| 1 | Heat cutter with blade | Heat cutter: for example, HSGM HSG-0 (check voltage) Blade: for example, HSGM Type R heat cutter blade | С |
| 1 | Junior hacksaw | For PCB shortening on an RGB Light Engine | D |
| 1 | Pair of scissors | For the textiles | E |
| 1 | Utility knife | For the textiles | F |
| 1 | Cutters | For coil springs | G |
| | White gloves | | Н |
| 1 | Felt tip pen | To mark the cutting line | |
| 1 | Rolling knife | For example, KitchenAid with modified blade: it must be blunt, not sharp | J |
| 1 | Screwdriver | Flat-head 1.2 × 6.5 mm (3/64 × 1/4 in) | К |
| 1 | Needle | Special stomp needle or other similar item to push fabric in corner | L |
| 1 | Screwdriver | Pozidriv 2 screwdriver | М |
| 1 | Allen key | 3 mm Allen key to open the bus covers | Ν |
| 1 | Tape measure | Used in during the resize of the Light Engine | 0 |
| 2 | Tables | Approximately 0.8 × 1.8 m, same height | |

4.2 Repair actions

4.2.1 Remove/replace a driver box

- 1 Remove the Luminous Textile from the wall or ceiling and unplug the power cord and ethernet cable (refer to the *Installation Guide*).
- 2 Place the Luminous Textile on a clean surface.
- 3 Find the serial numbers of the Luminous Textile and the driver box as described in section 2.2 Serial numbers and contact the local Signify representative for an RMA form.
- 4 Use a Pozidriv 2 crosshead screwdriver to unscrew the six screws from the top cover.



Figure 22 Remove the top cover fixation screws.

5 Remove the top cover of the driver box.



Figure 23 Remove the top cover.

6 Unplug the flat cables and release the cables from their clamps.



Figure 24 Unplug the flat cables.

7 Loosen the four screws (3 mm Allen key). Depending on the product version, the counter nut can be detached from the frame, or the nut is fixed to the frame. In both cases, unscrew the screws completely.



Figure 25 Remove the fixation screws.

8 Remove the driver box.



Figure 26 Remove the driver box.

- 9 Mount the new driver box.
- 10 Connect all the flat cables in the right order.
- 11 Close the top cover of the driver box.
- 12 Connect the Luminous Textile to the mains and check the functionality of the new driver box.
- 13 Finalize the RMA document and include the document in the shipment.
- 14 Reinstall and commission the Luminous Textile according the installation manual.
- 15 Upload the appropriate content to the driver box that has been replaced (See the *Installation Guide*).

4.2.2 Replace a PSU

- Remove the Luminous Textile from the wall or ceiling and unplug the power cord and ethernet cable (see *Installation Guide*).
- Place the Luminous Textile on a clean surface.
- Open the driver box top cover to check the 24 V power indicator LEDs at the right bottom side.
- Plug in the mains cable and check the 24 V power indicator LEDs for the corresponding RGB Light Engines.
- The LED must be green to indicate that the respective PSUs are working. If not, the applicable PSU must be replaced.



Figure 27, PSUs linked to RGB Light Engine.

4.2.3 24 V Power indicators per PSU

Not applicable for 24 V version.

Maximum four RGB Light Engines are powered per PSU power connection.

| Outputs to RGB Light Engines | PSU power connection |
|------------------------------|----------------------|
| Out 1 to Out 4 | PSU 1 |
| Out 5 to Out 9 | PSU 2 |
| Out 9 to Out 12 | PSU 3 |

In the driver box, PSU 1 is placed the farthest away from the main PCB.

- 16 Remove the mains cable.
- 17 Unplug the mains power wires (black and white) from the mains voltage distribution connector.
- 18 Unplug the 24 V power wires (red and blue) from the printed circuit board.



Figure 28, Replace a PSU.

- 19 Remove the two nuts and washers from the replaceable PSU.
- 20 Find the serial numbers of the Luminous Textile and the PSU as described in section 2.2 Serial numbers and order a new PSU at the local Signify representative.
- 21 Mount the new PSU.
- 22 Insert the power wires from the PSU appropriately: black and white in the mains voltage distribution connector and red and blue in the power connections of the PCB.
- 23 Route the wires correctly and secure them with the mounted cable clamps and/or tie-wraps.
- 24 Plug in the mains cable to check the functionality of the new PSU.
- 25 When the problem is solved, unplug the mains cable, and close the top cover.
- 26 Finalize the RMA document.
- 27 Reinstall the Luminous Textile according to the installation manual.

4.2.4 Replace an RGB Light Engine

The RGB Light Engine position in Luminous Textile: starts with Out 1 connected to RGB Light Engine at bottom as shown.



Figure 29, RGB Light Engine position in Luminous Textile.

- 1 Remove the Luminous Textile from the wall or ceiling and disconnect the mains and ethernet cable (see *Installation Guide*).
- 2 Place the Luminous Textile on a clean surface.
- 3 Locate the defective module by plugging in the mains cable.
- 4 Disconnect the mains cable again!
- 5 Find the serial numbers of the Luminous Textile as described in section 2.2 Serial numbers and contact the local Signify representative for an RMA form.
- 6 Remove the bus cover with a 3 mm Allen key.



➡ Note Keeping the mains connected irreversibly damages the product.

- 7 Write down the serial number of the defective RGB Light Engine as described in section 2.2 Serial numbers and contact the local Signify representative for an RMA form.
- 8 Unplug the flat cable from the RGB Light Engine (If the RGB Light Engine is below the driver box, remove the driver box first. Refer to section 4.2.1 Remove/replace a driver box)



Figure 31, Unplug the flat cable connector

9 Gently insert a flat screwdriver beneath the RGB Light Engine to snap it loose from the crossbars. Slide and bend the RGB Light Engine carefully out of the crossbars. This way scraping of the LEDs against the frame when sliding out the module is prevented.

Warning Prevent the LEDs from scraping over the frame. This could cause permanent damage to the Light Engine.



Figure 32, Lift the RGB Light Engine



Figure 33, Sliding out an RGB Light Engine

- 10 Verify that the width of the replacing Light Engine matches the old one. If not see section 4.2.4.1 how to correct that.
- 11 Slide a new RGB Light Engine between the crossbars. Be careful of the LEDs at the bottom side.
- 12 Plug in the flat cable connector. The connector only fits in one direction.
- 13 Connect the Luminous Textile to the mains and check the functionality of the new RGB Light Engine.
- 14 When everything is working, re-install the bus cover with the 3 mm Allen key.
- 15 Finalize the RMA document and include the document in the shipment.
- 16 Re-install the Luminous Textile according the installation manual.





- A junior hacksaw
- A new utility knife
- A tape-measure
- A felt tip pen



🖨 Note

An RGB Light Engine module can only be modified in predefined sizes steps of 60 mm (2.4 in), in length direction.

🖨 Note

Always use new white gloves while handling RGB Light Engines.

Figure 34, RGB Light Engine.

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To resize the RGB Light Engine module the following four steps must be followed. These are described each separately.

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1 Determine the required size.

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- 2 Cut the green sub PCB.
- 3 Mark the carrier plate.
- 4 Cut the carrier plate.

Size determination

Use the table below to determine the correct data for both following steps.

Shortening data

| LED strips Sub PCB cutting position | | Carrier plate cutting position | |
|-------------------------------------|---|--------------------------------|--|
| 5 | А | 60 mm | |
| 4 | В | 120 mm | |
| 3 | С | 180 mm | |

Cut the sub PCB

- 1 See table Shortening data for the sub PCB cutting position.
- 2 Put the RGB Light Engine module with the short edge and green sub PCB closest to you.
- 3 Use a junior hacksaw to cut the sub PCB on the indicator line at position A, B or C.



Figure 35, Cut the sub PCB at the indicator line.

Mark the carrier plate

- 1 Turn the RGB Light Engine module with the LED strips up and fixing clips closest to you. This is the short side with the green sub PCB at the back.
- 2 See table Shortening data for the carrier plate cutting position.

Mark a straight line with a pen at the carrier plate cutting position on the left side of the panel, parallel to the longest edge.



Warning Always measure from left to right, with the fixing clips closest to you.

Figure 36, Mark the carrier plate.

Cut the carrier plate

- 1 With a new utility knife, cut the obsolete part at the just drawn line.
- 2 Before the panel is mounted, clean it from cutting particles that might have been left on the RGB Light Engine.



Figure 37, Cut the carrier plate.

3 Continue to step 8 of section 4.2.4

4.3 Check SD card status

Perform the following steps to check the status of the SD card:

- 1 Log in to the administrator page of the Luminous Textile that has the problem (See the *Commissioning Guide*). In case the password is unknown, contact the customer. If the customer cannot help, contact the local Signify representative.
- 2 Click 'Luminous Textile info' and lookup to 'SD card status' in the right field.On error code (0) and (1) the system is fine.
 - On error code (-1), please ensure the card is in correctly. Replace the card if it was placed in-correctly or place a card if it was missing.
 - On all other error codes, go to the 'app page', open the 'service tools' app and first check, then repair the SD card.
 - Reboot the Luminous Textile.
- 3 If the issue persists, contact the local Signify representative.



Figure 38, Checking status of SD card.

Important

The SD card is a Linux formatted SD card. Any other format is not recognized and a creates an error.

(1) Warning

The SD card is permanently damaged if it is put in any other device than a Linux drive. If this happened all data is lost. A new Linux formatted SD card can be ordered via your local Signify representative.

4.3.1 Check player mode

In every synchronized multi-Luminous Textile installation there only one master Luminous Textile is allowed. To verify this, perform the following steps.



Figure 39, Synchronized multi-Luminous Textile installation

- 1 Open Content manager (The software main version must match the firmware version, for instance Software 3.x.x. -> firmware 3.x.x).
- 2 Click the discover button (1) (available from release 1.1.0 onwards).
- 3 In the type list (2) all devices present within the network can be viewed. In this case two master Luminous Textiles can be found.



Figure 40 Discover tool.

4 Switch one of the master Luminous Textiles back to slave mode and check for synchronization of the Luminous Textiles (can take up to 30 seconds or press play button on the master Luminous Textile).

4.3.2 Check battery status of the remote control

Battery check:



Figure 41, Remote control laser pointer.

- 1 Press the laser pointer button to see if the laser is working. If so, the battery is fine.
- 2 If not, there are two things required to check:
 - make sure that the remote control is ON, or
 - insert a new AAA battery



Figure 42 Change the remote-control batteries.

5 Care instructions for the textile finish

Stains can often be removed using a damp cloth before they penetrate the fibers.

If the stain has dried, first scrape off as much as possible with a brush and remove as much as possible with a vacuum cleaner. Avoid the use of any liquids apart from what is advised in section 5.2 Detailed cleaning instructions.

5.1 Material specification: Trevira CS

All textile finishes of the luminous textile are made from Trevira CS yarns.

Trevira CS is a special type of polyester (synthetic fiber): the chemical composition of the fibers makes this textile permanently flame-retardant. This quality remains intact after repeated laundering and long-term usage.

Important Be careful with the use of solvents like benzene, xylol and acetone because these might damage the fabric.

🔂 Tip

These tips for stain removal are only recommendations. 100% removal is not guaranteed! In all cases it is recommended to obtain specialist advice from a reputable dry cleaner.

| Pollution | Solution |
|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ballpoint pen | Use surgical spirit, then acetone (for example oil-free nail varnish remover). It is recommended that after every cleaning, spray extraction is used, so that any edge marks or residual cleaning agents are removed. |
| Chocolate | Treat fresh stains with an alkaline-based cleaning agent (for example soap flakes or washing-up liquid and soda). It is recommended that after every cleaning, spray extraction is used, so that any edge marks or residual cleaning agents are removed. |
| Ink | Treat using water mixed with furniture shampoo. It is recommended that after every cleaning, spray extraction is used, so that any edge marks or residual cleaning agents are removed. |
| Paint (water-based) | Start with just cold water. Then use water mixed with furniture shampoo. Finally, contact a specialist. It is recommended that after every cleaning, spray extraction is used, so that any edge marks or residual cleaning agents are removed. |
| Alcohol, black coffee, jelly, juice, fruit and syrup-based drinks, tea, wine | Treat fresh stains with a weak solution of organic acids (household vinegar). Rinse immediately. Treat dried stains treat with a general "oxidative" bleaching agent, for instance a 3% hydrogen peroxide solution. It is recommended that after every cleaning, spray extraction is used, so that any edge marks or residual cleaning agents are removed. |
| Blood, cream, gravy, milk, urine, vomit | Treat fresh stains with an alkaline-based cleaning agent (for example soap flakes or washing-up liquid and soda). It is recommended that after every cleaning, spray extraction is used, so that any edge marks or residual cleaning agents are removed. |
| Butter, candle wax, chewing gum, grease, lipstick, nail varnish, oil, oil-based paint, shoe polish, soot | Treat with a solvent (benzene, xylol, acetone etc. It is recommended that after every cleaning, spray extraction is used, so that any edge marks or residual cleaning agents are removed. |

5.2 Detailed cleaning instructions

6 Replacement of fabric

6.1 Introduction

Replacing the fabric or re-stretching is possible, however this must only be performed by well trained staff.

A training movie is available and can be obtained via your local Signify contact.

With below link the following technical information can be downloaded:

- Re-stretching video
- Re-stretching manual (separate or a part of the service manual)
- Re-stretching tools and overview (tools are mandatory for a correct installation)

Link to: https://www.datasharing.signify.com/index.php?key=20190416-9C3E0 5EDA5334AECAA4BA973F87149E3

Required new material:

• Fabric

The total length of the front fabric and the diffusor fabric to order is the length of the panel + 400 mm for each. Be aware that this in total is more than two times the length of a Luminous Textile.

Frame springs
These springs can break during the procedure, so some spares are advised.
Spring coils
Length: 0.5 m.
Quantity calculation:
Add the length and width of the panel in meters and multiply by 8 to calculate the required number of spring coils.
For example, in case of a 6.48 x 1.20 m panel:
(6.48 + 1.20) x 8 = 61.44 spring coils -> 62 pcs
(advisable to order 66 pcs).

Additional tools
LTP repair KIT

Before the re-upholstering or re-stretching is started, verify that all tools and other hardware required are available.

See section 4.1 for required tools.

6.2 Required replacement parts

| Quantity | ltem | Specification | Reference |
|----------------------------|--------------------------|--------------------------------------------------------|-----------|
| | Front textile | Enough for Luminous Textile size + 200 mm each side | |
| | Diffuser textile | Enough for Luminous Textile size + 200 mm each side | |
| 10 | Frame springs (spare) | Special for Luminous Textile | A |
| Calculate, see section 6.1 | Coil springs (spare) | Special for Luminous Textile 5.4 mm (0.21 in) | В |





6.3 Overview

A video is available via your local Signify representative.

- 1 Prepare two tables with the same height.
- 2 Put the Luminous Textile with textile up. The driver box must be placed between the tables.
- 3 Lift the rails from the corners and place the z-clamps to get access to the springs.
- 4 Use a long needle to lift the springs out of the rail. Start from the corners. Remove all springs.
- 5 Carefully remove the textile from the corners with the needle.
- 6 Remove the old textile.
- 7 Clean the corners from glue residue.
- 8 Position the new textile over the frame.
- 9 Switch the Luminous Textile ON. Verify that there are no disturbing fabric failures.
- 10 Cut the textile around 200 mm around the frame.
- 11 Take the roller and place the springs for the first edge. Start from the shorter edge of the Luminous Textile.
- 12 Go to the opposite side of the Luminous Textile and stretch and place the second spring.
- 13 Do the third side of the Luminous Textile very gentle.
- 14 The last side must be stretched hard while the spring is placed. Pull textile down hard.
- 15 Cut the springs in the corners.
- 16 Cut the corners with the scissors about 5 mm (0.2 in) oversized.
- 17 Use the needle to fixate the corners of the textile with the thermal glue.
- 18 With the heat cutter, cut the excess textile below the spring.
- 19 Remove the z-clamps, the rails move down automatically.

Important Wear gloves during the stretching to prevent damage to the fabric.

⊜ Note

If product is produced after 2019 week 22 the diffuser fabric is 20 mm longer.This is for easy fabric re-stretching if required. In that case follow steps 1 to 5 and only remove the coil springs from the front fabric in the area that you want to do re-strecting. After that you can pull gently on the diffuser fabric to smoothing out wringkles. Appendix

A Spare part list Luminous Textile

It is not possible to order a not listed fabric since the non-listed fabrics are phased out

| Order name | Order code | Description |
|------------------------------------------|--------------|----------------------------------------------|
| A LTP DRIVER BOX 24V | 992200112894 | Full driver box for the 24 V version |
| A LTP FABRIC DROPS 162 W310cm 1PC=1M | 992200113964 | Replacement fabric (order per meter) |
| A LTP FABRIC DROPS 762 W310cm 1PC=1M | 992200113965 | Replacement fabric (order per meter) |
| A LTP FABRIC GINGER2 101 W300cm 1PC=1M | 992200113966 | Replacement fabric (order per meter) |
| A LTP FABRIC GINGER2 201 W300cm 1PC=1M | 992200113967 | Replacement fabric (order per meter) |
| A LTP FABRIC GINGER2 622 W300cm 1PC=1M | 992200113968 | Replacement fabric (order per meter) |
| A LTP FABRIC GINGER2 722 W300cm 1PC=1M | 992200113969 | Replacement fabric (order per meter) |
| A LTP FABRIC GINGER2 922 W300cm 1PC=1M | 992200113970 | Replacement fabric (order per meter) |
| A LTP FABRIC KINNASANDTWISTER1190 1PC=1M | 992200113971 | Replacement fabric (order per meter) |
| A LTP FABRIC PERCALE 6706 CHINTZ 1PC=1M | 992200113963 | Diffuser fabric (order per meter) |
| A LTP FABRIC TOTO 330 102 W330cm 1PC=1M | 992200113972 | Replacement fabric (order per meter) |
| A LTP FABRIC TOTO 330 202 W330cm 1PC=1M | 992200113973 | Replacement fabric (order per meter) |
| A LTP FABRIC WINDING 123 W330cm 1PC=1M | 992200113974 | Replacement fabric (order per meter) |
| A LTP FABRIC WINDING 193 W330cm 1PC=1M | 992200113975 | Replacement fabric (order per meter) |
| A LTP PCBA COUPLER BOARD THT | 992200113948 | 24 V input board (only for the 24 V version) |
| A LTP PLAYER BOARD MEMORY CARD | 992200113976 | SD card, Linux formatted |
| A LTP SPRING COIL D54 L500 | 992200113957 | Spring coil for re-upholstery |
| A LTP U SPRING D17 | 992200113958 | U-spring for re-upholstery |
| A LTP Z-BRACKET | 992200113959 | Z-bracket for re-upholstery |
| CA Flat Ribbon Cable 1 (37 cm) | 912000007028 | Flat cable 370 mm |
| CA Flat Ribbon Cable 2 (85 cm) | 912000007029 | Flat cable 850 mm |
| CA flat ribbon cable 3 (119 cm) | 912000007012 | Flat cable 1.19 m |
| CA Flat Ribbon Cable 4 (150 cm) | 912000007030 | Flat cable 1.5 m |
| CA Flat Ribbon Cable 5 (190 cm) | 912000007031 | Flat cable 1.9 mm |
| CA flat ribbon cable 6 (221 cm) | 912000007013 | Flat cable 2.21 m |
| Driverbox 1 PSU, CE (LLD01100S) | 912000007002 | Full driver box with 1 PSU (CE) |
| Driverbox 1 PSU, UL (LLD01150S) | 912000007025 | Full driver box with 1 PSU (UL) |
| Driverbox 2 PSU, CE (LLD01200S) | 912000007003 | Full driver box with 2 PSUs (CE) |
| Driverbox 2 PSU, UL (LLD01250S) | 912000007026 | Full driver box with 2 PSUs (UL) |
| Driverbox 3 PSU, CE (LLD01300S) | 912000007004 | Full driver box with 3 PSUs (CE) |
| Driverbox 3 PSU, UL (LLD01350S) | 912000007027 | Full driver box with 3 PSUs (UL) |
| LED Power Driver Outd. 100-240V 100W 24V | 913700621091 | Single PSU |
| LLS Mounting set (LLBR2P02S) | 912000007909 | Wall mount kit, magnetic, all parts |
| LLS Mounting set (LLBR3C02S) | 912000007914 | Ceiling mount kit, magnetic, all parts |
| LLS Mounting set (LLBR3M02S) | 912000007915 | Wall bracket |

| Order name | Order code | Description |
|------------------------------------------|--------------|----------------------------------------------------------|
| Lumamodule3x20leds (LLL011L0180W120000S) | 912000007033 | RGB Light Engine 3 × 20 LEDs |
| Lumamodule4x20leds (LLL011L0240W120000S) | 912000007007 | RGB Light Engine 4 × 20 LEDs |
| Lumamodule5x20leds (LLL011L0300W120000S) | 912000007032 | RGB Light Engine 5×20 LEDs |
| Lumamodule6x20leds (LLL011L0360W120000S) | 912000007001 | RGB Light Engine 6 × 20 LEDs |
| Mounting set (LLBR1P01S) | 912000009052 | Wall mount kit, hook, all parts |
| Mounting set (LLBR4C01S) | 912000009055 | Ceiling mount kit, Posilock, all parts |
| Player PCB (LLYP0100) | 912000007006 | Main PCB in the driver box |
| Remote Control (LLRE02) | 912000009073 | Presenter remote control |
| Router 4 port wireless (LLNS01) | 912000009019 | 4-port wireless router |
| Safety cable assembly (LLBR5C01S) | 912000009302 | Safety kit, all parts |
| Switch 8 port D-Link DGS-1008D (LLNS02) | 912000009020 | 8-port Gigabit unmanaged desktop switch |
| XITANIUM 100W 4.1A 24V INTELLIVOLT | 913710299702 | Power Supply Unit (PSU), to supply power to the main PCB |

Appendix

B Spare part list RGB Light Engines

➡ Note Always order the correct width since the width cannot be adjusted.

Replacement of RGB Light Engine for Luminous Textiles produced after week 22 in 2019

The RGB light Engines are available in nine different width variations from 12 to 20 LEDs in line.

The available length variations are 3 to 6 rows. See section 4.2.4.1 Adjust the width of an RGB Light Engine to make any 6 row Light Engine match the correct length.

Available size

| 12nc | Supplier code | SAP order name | Remark |
|--------------|-----------------------|-----------------------------|---------|
| 912000000569 | 97-L360W072000LM-01SP | LTP LUMAMODULE V2 6X12 LEDS | |
| 912000000568 | 97-L360W078000LM-01SP | LTP LUMAMODULE V2 6X13 LEDS | |
| 912000000567 | 97-L360W084000LM-01SP | LTP LUMAMODULE V2 6X14 LEDS | |
| 912000000566 | 97-L360W090000LM-01SP | LTP LUMAMODULE V2 6X15 LEDS | |
| 912000000565 | 97-L360W096000LM-01SP | LTP LUMAMODULE V2 6X16 LEDS | |
| 912000000564 | 97-L360W102000LM-01SP | LTP LUMAMODULE V2 6X17 LEDS | |
| 912000000563 | 97-L360W108000LM-01SP | LTP LUMAMODULE V2 6X18 LEDS | |
| 912000000562 | 97-L360W114000LM-01SP | LTP LUMAMODULE V2 6X19 LEDS | |
| 912000000545 | 97-L360W120000LM-01SP | LTP LUMAMODULE V2 6X20 LEDS | Default |
| 912000000572 | 97-L180W120000LM-01SP | LTP LUMAMODULE V2 3X20 LEDS | |
| 912000000571 | 97-L240W120000LM-01SP | LTP LUMAMODULE V2 4X20 LEDS | |
| 912000000570 | 97-L300W120000LM-01SP | LTP LUMAMODULE V2 5X20 LEDS | |

Replacement of RGB Light Engine for Luminous Textiles produced before week 22 in 2019

| Available size | | | |
|----------------|---------------------|----------------------------|---------|
| 12nc | Supplier code | SAP order name | Remark |
| 912000007033 | LLL011L0180W120000S | Lumamodule3x20leds | |
| 912000007007 | LLL011L0240W120000S | Lumamodule4x20leds | |
| 912000007032 | LLL011L0300W120000S | Lumamodule5x20leds | |
| 912000007001 | LLL011L0360W120000S | Lumamodule6x20leds | Default |
| 992200114085 | LLL011L0180W102000S | A LTP LUMAMODULE 3X17 LEDS | |
| 992200114151 | LLL011L0180W108000S | Lumamodule3x18leds | |
| 992200114084 | LLL011L0360W102000S | A LTP LUMAMODULE 6X17 LEDS | |
| 992200114031 | LLL011L0360W108000S | A LTP LUMAMODULE 6X18 LEDS | |

Appendix

C Return Material Authorization (RMA)

All returned parts must be accompanied by an RMA form.

One form is required for each returned part. Note the relevant serial numbers and contact the local Signify representative for the form

C.1 Data required for filling in the RMA form

- Serial number for the Luminous textile. Refer to section 2.2 Serial numbers.
- Serial number of the driver box. Refer to section 2.2 Serial numbers.
- Serial number of the RGB Light Engine. Refer to section 2.2.1 Luminous Textile identification and serial number.
- Serial number PSU. Refer to section 2.2.4 PSU serial number.



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