

# Operation and Maintenance Manual

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**Signcraft Pty. Ltd.**

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O&M Document No:

Project Completion Date:

Signcraft Project Manager:

# Operation & Maintenance Manual

## Table of Contents

<b>1. Introduction and Scope of Works</b>	<b>3</b>
1.1. Purpose	3
1.2. Scope of Works	3
<b>2. Contacts</b>	<b>3</b>
<b>3. Warranty Details</b>	<b>3</b>
<b>4. Maintenance</b>	<b>3</b>
4.1. General	3
4.2. Maintenance Schedule & Instructions	5
4.3. Maintenance Record	6
4.4. General Cleaning Guidelines	6
<b>5. Sign Face Removal</b>	<b>6</b>
5.1. Acrylic/Aluminium Face Lightbox	6
5.2. Acrylic/Aluminium Blade/Under Awning Lightbox	7
5.3. Flexface Lightbox	7
5.4. Fabricated Letter/Logo Signage	7
5.5. Checking for Water Ingress	7
5.6. Troubleshooting Electrical & Power Supply Maintenance	7
<b>6. Warranty</b>	<b>9</b>
<b>7. As-Built Drawings &amp; Certification</b>	<b>12</b>

## 1. Introduction and Scope of Works

### 1.1. Purpose

Signcraft has carried out the design and construction of Signage for [Project Name, State]. This Operation and Maintenance Manual has been prepared to provide guidance and recommendations to assist:

- Users of the Signage/Display
- Managers of the building and services
- Employees who carry out maintenance, repair or new works within the building in the understanding, running and maintenance of the services installed.

We strongly encourage you become familiar with the information contained in this manual.

### 1.2. Scope of Works

Contractual scope of signage has been detailed in the table below:

Sign Reference	Quantity
<b>Total Signs</b>	

## 2. Contacts

Should you have any queries or concerns relating to your Signcraft Signage/Display please refer to the contact numbers outlined below

The following schedule provides a listing of the subcontractors and their contact details:

Subcontractor	Contact Person	Phone	Alternate Phone
Signcraft Pty. Ltd.	Projects Department	03 9360 6222	

## 3. Warranty Details

The following schedule provides a listing of the subcontractor warranties.

Scope/Item	Subcontractor	Period
Signage	Signcraft Pty Ltd	

Excludes:

1. Transformers (power supply)
2. Signage supplied by others

## 4. Maintenance

### 4.1. General

Your Signage/Display is a unique and complex structure that contains many components. Albeit materials and forms of construction are selected to be suitable and fit for their intended purpose, the service life of many components will be less than the expected life of the building. Condition monitoring and maintenance will ensure all the components of the

Sign/Display will perform as intended and will ensure that material, product and installer warranties will remain intact.

Most building owners are aware of the duty they have to maintain the Fire Safety Measures installed in the building. However, just like a car, the building Signage/Displays require regular preventative maintenance.

It is good practice to visually inspect your Signage/Displays, inside & out, at least annually and note the condition. This will allow you to monitor the condition and will also allow early detection of any deterioration that may require immediate rectification.

**Please note that inspection may be required more frequently depending upon manufacturer's recommendations, the materials used and the location of the building.**

Regular inspection will allow you to develop an understanding of how your Signage/Display is performing and to accurately plan and budget future maintenance and capital works. This will result in a reduction of the cost for maintenance in the longer term and maintain the value of your asset. Unfortunately lack of maintenance will lead to early failure of Signage/Display components potentially resulting in:

- Unsafe conditions,
- Costly repairs, unattractive appearance,
- Loss of recourse to material, product and installer warranties,
- Litigation.

**Maintenance works must only be carried out by suitably licensed and experienced contractors.**

## 4.2. Maintenance Schedule & Instructions

The following schedule provides a listing of items that will require both preventative and regular maintenance and the recommended frequency and method.

Signage/Display	Frequency				Maintenance Procedure
EXTERNAL - NON-ILLUMINATED	Monthly	3 Months	6 Months	12 months	
All Non-Illuminated Signage i.e. Braille, Door Plate, Blade, Suspended, Wayfinding, 3D lettering, Vinyl, Digitally Printed Vinyl Graphics, POS			*		Clean with mild detergent and wipe dry (no harsh solvents)
EXTERNAL - ILLUMINATED	Monthly	3 Months	6 Months	12 months	Maintenance Procedure
All Illuminated signage i.e. Fascia, Pylon, Directory, Lightbox's, 3D Letters (low and High level)			*		Clean external components with mild detergent and wipe dry (No harsh chemicals)
All Illuminated signage excluding embedded LED i.e. Fascia, Pylon, Directory, Lightbox's, 3D Fabricated Letters (low and High level)				*	Remove illuminating face, clean with mild detergent and wipe dry (No harsh chemicals)
All illuminated signage i.e. Fascia, Pylon, Directory, Lightbox's, 3D Fabricated Letters (low and High level)				*	Electrical inspection and test. Check all connections, check led chains, check power supply's & test. Night photos.
INTERNAL - NON-ILLUMINATED	Monthly	3 Months	6 Months	12 months	Maintenance Procedure
All Illuminated Signage Ei Fascia, Wayfinding, Directory, Suspended, Wall signs, Blade Signs, 3D lettering, Digitally Printed Graphics (Laminated)				*	Clean with microfibre cloth (No water & detergent)
INTERNAL - ILLUMINATED	Monthly	3 Months	6 Months	12 months	Maintenance Procedure
All illuminated signage i.e. Wayfinding, Suspended, Blade, Wall Sign				*	Clean external components with micro fibre cloth (No water & detergent)
All illuminated signage Wayfinding, Suspended, Blade, Wall Sign				*	Electrical inspection and test. Check all connections, check led chains, check power supply's & test
OTHER	Monthly	3 Months	6 Months	12 months	Maintenance Procedure
LED Display					As per documentation provided

### 4.3. Maintenance Record

To ensure that the specified warranty agreement remains valid, Section 6.2 Maintenance Schedule must be followed and recorded by completing the [Signcraft Maintenance Record - Online Form Link](#)



Failure to do so may mitigate any warranty published by Signcraft.

### 4.4. General Cleaning Guidelines

The following cleaning procedure is recommended every 6 months. All surfaces should be cleaned using a soft cloth or sponge,

#### WARNINGS

- Over-cleaning or excessive rubbing can do more harm than good.
- Strong solvents or strong cleaner concentrations can cause damage to painted surfaces.
- Avoid abrasive cleaners. Do not use household cleaners that contain abrasives on painted surfaces.
- Abrasive materials such as steel wool, abrasive brushes, etc. can wear and harm finishes.
- When using recommended solutions avoid drips and splashes. Remove run downs as quickly as possible.
- Avoid temperature extremes. Heat accelerates chemical reactions and may evaporate water from the solution. Extremely low temperature may give poor cleaning effects. Cleaning under adverse conditions may result in streaking or staining. Ideally, cleaning should be done in the shade at moderate temperature.
- Do not substitute a heavy-duty cleaner for a frequently used mild cleaner.
- Do not scour painted surfaces.
- Never use paint removers, aggressive alkaline, acid or abrasive cleaners. Do not use trisodium phosphate or highly alkaline or highly acidic cleaners. Always do a surface test.
- Follow manufacturer's recommendations for mixing and diluting any recommended cleaners.
- Never mix recommended cleaners.
- To prevent marring, make sure cleaning sponges, cloth, etc... are grit-free.

## 5. Sign Face Removal

**Sign face removal for the purpose of cleaning and or maintenance works must only be carried out by suitable Signage Company with experienced installers.**

### 5.1. Acrylic/Aluminium Face Lightbox

1. Remove the aluminium retainer (or moulding) on one end of the sign.
2. Some sign faces are also held in place by screws through the sign face flange. Retainers and screws must then be removed from each end.
3. Slide out the entire sign face to reveal the LED
4. Inspect electrics and inside of the letter/logo for condition
5. Take photographs and document

6. Repeat steps 3, 2 and 1 in reverse to reinstall sign

### 5.2. Acrylic/Aluminium Blade/Under Awning Lightbox

1. Remove the aluminium retainer (or moulding) on one end of the sign.
2. Some sign faces are also held in place by screws through the sign face flange. Retainers and screws must then be removed from each end.
3. Slide out the entire sign face to reveal the LED
4. Inspect electrics and inside of the letter/logo for condition
5. Take photographs and document
6. Repeat steps 3, 2 and 1 in reverse

### 5.3. Flexface Lightbox

1. Remove the aluminium cover trim from the bottom and left and right ends of the sign.
2. Loosen the flexface tensioners
3. Unclip the tensioners from the tracks
4. Roll up the flexface to expose the electrics
5. Inspect electrics and inside of the lightbox for condition
6. Take photographs and document
7. Repeat steps 4, 3, 2 and 1 in reverse

### 5.4. Fabricated Letter/Logo Signage

1. Remove the aluminium perimeter retainer or complete fabricated face to expose electrics
2. Inspect electrics and inside of the letter/logo for condition
3. Take photographs and document
4. Repeat step 1

### 5.5. Checking for Water Ingress

Although LED's and transformers/power supplies are waterproof, it is important to take note of any water build up that could lead to issues due to poor drainage.

**Important: DO NOT fill any drain holes along the bottom of the sign box**

### 5.6. Troubleshooting Electrical & Power Supply Maintenance

**WARNING: Electrical works must only be carried out by suitably licensed and experienced contractors.**

PROBLEM	POSSIBLE CAUSE	SOLUTION
The sign is out in full	240v Supply	Check switch gear Check circuit breaker Check time clock Check photoelectric cell Check DMX control system Check 4G system


	Power supply/s	Check 240V connection Check power supply operation
<b>The sign is partially out</b>	Power supply/s	Check 240V connection Check power supply operation
	12V connection to power supply/s	Check terminal connection
	LED chains	Check LED chains and replace if necessary



## 6. Warranty

- 1.1 This Warranty is provided by Signcraft.
- 1.2 Signcraft will provide a Warranty subject to the following terms and conditions.
- 1.3 Signcraft warrants that all signage or product supplied will be free from any characteristics which hinders its usability for the purpose for which it was designed and manufactured/installed (defects free) as of the project completion date as specified in section 3 of this document ("Warranty Period") Unless otherwise stated in Section 3, the Warranty Period is twelve (12) months from the project completion date. Signcraft agree to make good any defect by replacement or repair (at Signcraft's election) of any defect in any signage element, section or part thereof supplied (or in the case of defective installation by Signcraft, to make good the defect by re-installation), which defect appears within the Warranty Period subject to the terms and conditions below.
- 1.4 This Warranty covers all signage products supplied including signage, lighting, fittings, fixtures, and structures ("Goods") and installation of the Goods (but only where installed by Signcraft).
- 1.5 This Warranty will also cover any call out and rectification by Signcraft or its contractors. However, where such works are performed and it is determined by Signcraft that the problems addressed by such works were not due to manufacturing or workmanship defects, such works may be charged directly to the Customer.
- 1.6 The Warranty Period commences from the date of project completion.
- 1.7 Any liability under this Warranty is expressly limited at the sole discretion of Signcraft to:
  - 1.8.1 in the case of defective Goods:
    - 1.7.1 The repair of the Goods at the Customer's premises, or
    - 1.7.2 The replacement or resupply of the Goods or parts to the Customer's premises; and
    - 1.7.3 in the case of defective installation of Goods, re-installing the Goods.
- 1.8 To the maximum extent permitted by law, the Customer agrees that Signcraft shall only be liable to make good, replace, repair

or resupply Goods in accordance with clause 8 in the event that:

- 1.8.1 The alleged defects have arisen solely from faulty materials or workmanship by Signcraft.
  - 1.8.2 The Goods have not received maltreatment, inattention, or interference from the Customer; and
  - 1.8.3 If requested by Signcraft, that the Customer at their own cost promptly returns any defective parts of the Goods to Signcraft.
- 1.9 Signcraft is not responsible or liable for any indirect, special or consequential damages arising out of or in connection with the use or performance of the Goods or other damage with respect to any economic loss, loss of property, loss of revenue or profit, loss of enjoyment or use, cost of removal, installation or other consequential damage of any nature.
  - 1.10 To claim the Warranty, the Customer must at its own cost within the Warranty Period notify Signcraft via the [Signcraft Maintenance Request & Warranty Form](#)


of the defect. In addition, to be eligible to claim the Warranty:

    - 1.10.1 The defect must be notified to Signcraft in writing within 7 days of the Customer detecting the defect (or within 7 days of when the Customer ought reasonably to have discovered the defect, whichever is the earlier); and
    - 1.10.2 The Customer must supply Signcraft on request the original receipt showing the date, serial number (in the case of Goods) and proof of purchase.
  - 1.11 Once a claim on the Warranty has been notified to Signcraft in the manner and within the time required, the Customer shall allow Signcraft a reasonable opportunity to inspect the Goods or the results of the installation at a time

convenient to Signcraft for the purpose of Signcraft evaluating the Warranty claim and determining whether to accept or reject it.

- 1.12 The following clauses 1.13 to 1.26 set out situations and items which are excluded from coverage by this Warranty.
- 1.13 Where the total price has not been paid by the due date for payment.
- 1.14 Defects in the signage arising from any specification or other material, services or instructions specifically submitted /requested by the Customer against the recommendation of Signcraft.
- 1.15 Failures or problems resulting from faults with the building, structure, or sub-fascia to which Signcraft fixed the signs where such faults were not apparent at the time of installation and had not been notified to Signcraft in writing by the Customer.
- 1.16 Damage or effects caused by vandalism, storm, adverse weather conditions, fire, traffic accident, acts of god, misuse, unauthorized use, alteration, power surges/ fluctuations in the electrical current from mains power, improper power supply, poor handling, third party erection, removal or relocation of signage, storage not in accordance with the requirements of clause 22 below or installation or storage not in accordance with any requirements or recommended methods otherwise advised by Signcraft to the Customer.
- 1.17 Damage to any third-party structure, wall, paintwork, or bracket that may result from any of the matters set out in clause 18.
- 1.18 Damage caused by any unauthorised access, foreign object, vermin, animal, or insect entering the Goods.
- 1.19 Fair wear and tear occurring once installation and handover is complete (including but not limited to bumps, dents, scratches, and blemishes). Customers should note that environmental conditions and location may contribute to fair wear and tear. For instance, in relation to metal frame fascias, flat panel fascias, pylons and directories, environmental conditions and location may result in or contribute to the following

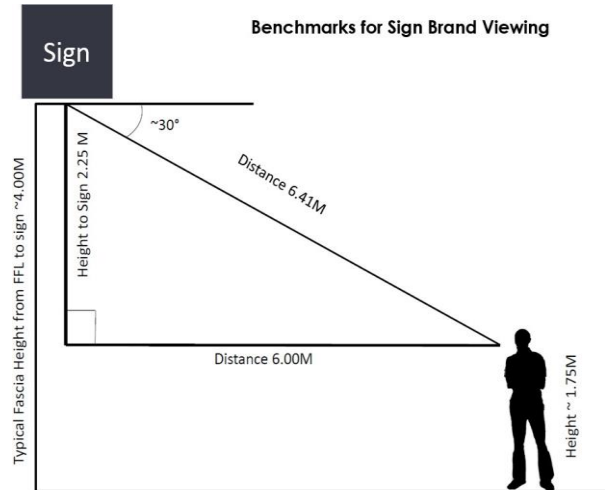
kinds of fair wear and tear:

- 1.19.1 Decreased exterior performance of vinyls, plastics and paints for signage facing north & west, installed horizontally, in areas of long high temperature exposure, or in industrially polluted areas or high altitudes.
- 1.19.2 Fading of colours and plastics.
- 1.19.3 Paint peeling from backgrounds, edges, lettering, framing, supports, flooring, and all visible surfaces.
- 1.19.4 Vinyl peeling, curling, shrinking, or cracking.
- 1.19.5 Letters or graphics detaching from surfaces; and
- 1.19.6 Substrate delaminating, cracking, or rotting.
- 1.20 Damage to banners caused or contributed to by storage that is not in accordance with the requirements and guidance set out below:
  - 1.20.1 All digitally printed banners should be stored vertically around a tube with a minimum 3" diameter, at room temperature. They should never be folded or stored with anything on top of them. Banners on roll-up stands are the exception to this; they need only be stored as required by the stand to which they are attached.
  - 1.20.2 Banners with applied vinyl graphics, or with an over laminate, should be displayed and stored completely flat. Whilst this may not be possible, and storing it around the aforementioned tube will help, the vinyl will still begin to 'tunnel' as it is rolled and unrolled. This is normal and cannot be completely avoided. Accordingly, all damage to banners with applied vinyl graphics, or with an over laminate, which are not displayed and stored completely flat is not covered by this Warranty.
- 1.21 Damage or wear to exterior use banners. By way of explanation of this exclusion (but without in any way limiting the generality of the foregoing), the Customer should note that while some interior use banners can last indefinitely, exterior use banners should always be considered temporary signage. They can last for as little as a few

months or for several years. Weather plays a significant factor in the life of a banner, as well as how and where it was installed. Due to exposure to unlimited conditions, including harsh weather, exterior use banners are not warranted against damage or wear.

- 1.22 Damage to digital prints without over lamination caused by abrasion, excessive physical contact, or weather.
- 1.23 Edges delaminating (edges peeling up) over time on mounted prints without "framing" around the edge.
- 1.24 Deterioration in quality of signage caused by incorrect or poor maintenance, incorrect cleaning materials, poor maintenance of external sign and internal cavities, water leakage caused by poor resealing after maintenance, rust as a result of bumps, dents and scratches and failure to use the product in accordance with oral instructions or information contained in the 'Operations and Maintenance' manual.
- 1.25 Damage to signs, property or persons that may result from faulty installation where Signcraft has not been engaged for installation services. In this regard, Customers should note that any advice offered by Signcraft regarding installation shall not be construed as assumption of responsibility on their part for Customer's adherence, or lack thereof, to any such advice.
- 1.26 Any defect that cannot be seen from the position of a person as shown in Diagram 1.  
Typical examples of such defects are:
  - Marks.
  - Dents.
  - Particles.
  - Embeddings.
  - Spots

**Diagram 1: Benchmark for Sign Brand Viewing**



## **7. As-Built Drawings & Certification**

Insert shop drawings, engineering and certification documents