# Site Preparation Guide

Colorado 1630

# **Contents**

Chapter 1	
Introduction	
Use of the Site Preparation Guide	
Important Site Preparation Guide updates	
Notes for the reader	8
Copyright and Trademarks	10
Chapter 2	
Shipping and Handling	11
Dimension and weight of the crate	
Chapter 3	
Specifications and Requirements	15
Printer dimensions	
Floor space requirements	
Electrical requirements	
Environmental requirements	
Connectivity requirements	
RIP applications for the system	
Security requirements	
Training requirements	
Chapter 4	
Site Preparation checklists	25
Shipping address and contact information	26
Hardware checklist and floorplan	
Connectivity checklist	30
Security checklist	32
RIP application checklist	
License checklist	35
Service Organization ID (SOID) checklist	
Application checklist	
Media checklist	38

# **Chapter 1**Introduction

## **Use of the Site Preparation Guide**

#### Colorado 1630

This guide contains information, which helps an educated service technician or consultant to prepare the installation of the Colorado 1630 system.

The Colorado 1630 is a designed 64" roll-to-roll system for the Graphic Arts market, based on UV gelling ink technology.



#### Use of the content

The manual contains 2 chapters with additional information regarding the system requirements:

- Shipping and Handling.
  - This chapter contains all shipping information like printer crate sizes and weights.
- Specifications & Requirements.
   The required infra structure for the Colorado 1630 .

Site Preparation Checklists.

The last chapter in this manual contains the Site Preparation Checklist.

Fill in and check together with the customer and the system administrator the hardware, connectivity, security, RIP application, License, service organization and media checklists.

# **Important Site Preparation Guide updates**

#### Introduction

This page is used to inform you about important updates in the Site Preparation Guide of the Colorado 1630 .

#### **Latest Site Preparation Guide updates**

Item	Description	Date
New	Small updates of the connectivity information	2021-09
New	Release of the Site Preparation Guide.	2021-05

### Notes for the reader

#### **Typography**

This manual uses the following typography to indicate elements that are part of the user interface.

Typography	Indicates
[Text between square brackets]	Name of a button, tile, setting, value, or other option of the user interface
<text angle="" between="" brackets=""></text>	<ul> <li>Name of a key on a keyboard</li> <li>Name of a variable: item that varies according to the context</li> </ul>
Text displayed in courier font	<ul><li>File path</li><li>Command Prompt comment</li></ul>
[Text] →[displayed in] →[menucascade]	Names of options to be used in a fixed order

#### Safety symbols

Before you use this product, make sure you read and understand the safety information that belongs to the product. Find the safety information on "http://downloads.cpp.canon". Also be sure to follow all warnings and instructions marked on the product.

This manual uses the following safety symbols to indicate hazards and precautions.

Symbol	Type of symbol	Indicates
	WARNING	Indicates a warning concerning operations that may lead to death or injury to persons if not performed correctly. To use the machine safely, always pay attention to these warnings.
	CAUTION	Indicates a caution concerning operations that may lead to injury to persons if not performed correctly. To use the machine safely, always pay attention to these cautions. This indication can concern hazards that have a specific CAUTION symbol. The 'hot surface', 'electric shock', 'moving parts' and 'laser beam' cautions are listed below.
<u>III</u>	CAUTION	Hot surface Indicates a caution concerning operations that may lead to injury to persons if not performed correctly. To use the machine safely, always pay attention to these cautions.
4	CAUTION	Electric shock Indicates a caution concerning operations that may lead to injury to persons if not performed correctly. To use the machine safely, always pay attention to these cautions.
	CAUTION	Moving parts Indicates a caution concerning operations that may lead to injury to persons if not performed correctly. To use the machine safely, always pay attention to these cautions.

Symbol	Type of symbol	Indicates
*	CAUTION	Laser beam Indicates a caution concerning operations that may lead to injury to persons if not performed correctly. To use the machine safely, always pay attention to these cautions.
	IMPORTANT	Indicates an operational requirement or restriction. Read these items carefully in order to prevent damage to equipment, software, data, media, or property.
	NOTE	Indicates a clarification of an operation or contains additional explanations for a procedure. Reading these notes is highly recommended.

#### **Body protection symbols**

This manual uses the following body protection symbols to indicate that it is important to protect yourself before performing a specific task or action.

Symbol	Type of symbol	Indicates
	IMPORTANT	Hand protection Wear the mentioned type of gloves when you perform this task or action.
	IMPORTANT	Eye protection Use the mentioned type of eye protection when you perform this task or action.
	IMPORTANT	Body protection Wear the mentioned type of body protection when you perform this task or action.
	IMPORTANT	Foot protection Wear the mentioned type of safety footwear when you perform this task or action.

## **Copyright and Trademarks**

#### Copyright

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CANON PRODUCTION PRINTING SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE, OR LOSSES OR EXPENSES RESULTING FROM THE USE OF THE CONTENTS OF THIS PUBLICATION.

#### Language

Original instructions that are in American English.

#### **Trademarks**

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All other trademarks are the property of their respective owners and hereby acknowledged.

# **Chapter 2**Shipping and Handling

## Dimension and weight of the crate

#### Introduction

This section is about the dimensions and weight of the printer crate, forklift and uncrate requirements.

#### Illustration



#### Dimensions and weight of the crate with the printer

	Dimensions
Length	3181mm 125.3"
Width	1143mm 45"
Height	1560mm 61.5"
Weight	925 kg 2039.3 lbs

#### Forklift guidelines:



#### **IMPORTANT**

Never use a forklift or pallet jack when the printer is off the pallet.

Use only a forklift or pallet jack that complies with the following specifications.

- Long side lift fork length minimum of 1.45m (57").
- Short side lift fork length minimum of 3.3m (130").

#### **Uncrate requirements**

The printer can only be rolled off the crate in one direction. Check the "Exit side" label on the crate.



Required dimensions to be able to roll the printer of the pallet:

Description	Dimensions
Length x Width	7.7m (303.2") (= pallet, ramp, printer and some space to push the printer) (Minimum length: 6.8m (268")) x 1.15m (45.3") (= width of the pallet).
	3021,4

# **Chapter 3**

**Specifications and Requirements** 

### **Printer dimensions**

#### Introduction

This section gives an overview of the printer dimensions in different build stages.

#### **Printer only dimensions**

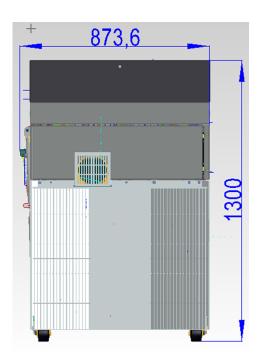
The printer on the wheels (including the winder) has the following dimensions:

Description	Specification
Width	3022mm (119")
Depth	1093mm (43")
Height	1300mm (51.2")
Weight	740 kg (1631 lbs)

The printer on the wheels (including winder and excluding the winder drive and user operator panel) has the following dimensions:

Description	Specification
Width	3022mm (119")
Depth	957mm (37.7")
Height	1300mm (51.2")

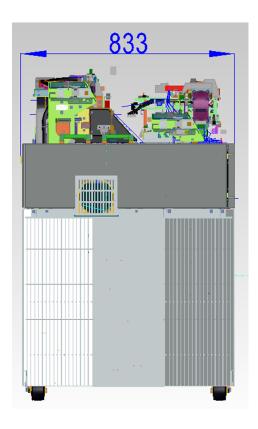
The printer on wheels (without winder and user operator panel) has the following dimensions:



Description	Specification	
Width	3022mm (119")	1

Description	Specification
Depth	874mm (34.4")
Height	1300mm (51.2")

The printer on wheels (without winder, user operator panel, top cover and top cover hinges) has the following dimensions:

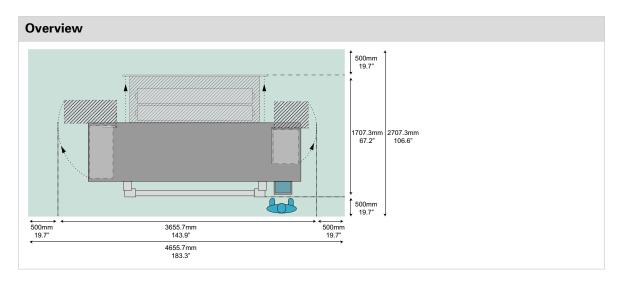


Description	Specification
Width	3022mm (119")
Depth	833mm (32.8")
Height	-

# Floor space requirements

#### Overview

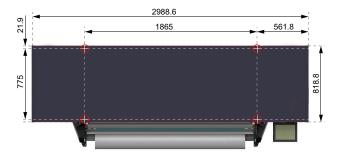
The following floor space and height is required:



Description	Specification
Width	4655mm (183.4")
Depth	2707mm (106.6")
Height	1310mm (51.6") = Top cover closed 1800mm (70.9") = Top cover opened 1884mm (74.2") = Top cover in service position.

#### **Location feet**

Location of the 4 feet in mm.



## **Electrical requirements**

#### Introduction

This section gives an overview of the electrical requirements and the location of the power supply.

#### **AC Power and wiring**

#### 50Hz version

Description	Specification
Rated voltage	200 - 240V, 2 Phase/N
Rated current	16A/6A
Building fuse value	16A/16A

#### 60Hz version

Description	Specification
Rated voltage	200 - 240V, 2 Phase/N
Rated current	16A/6A
Building fuse value  NOTE Building fuse value for standard U.S. or Canadian source must be rated 125% of the rated current of the machine as declared on power marking label.	20A/20A

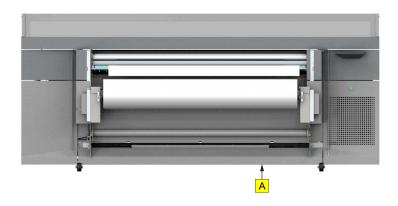
Mains connection: cable with plug.

Safety class: I.

Protection class: IP20.

#### Location power supply

Location power supply connection at A:



Delivered with the system: 2 x cable with C20/C19 plugs.

# **Environmental requirements**

#### Introduction

This section gives an overview of the environmental requirements for the print room and the ink storage conditions.

#### **Print room conditions**

Description	Specification
Temperature	18 - 30 °C (64 - 86 °F) Recommended: 20 - 27 °C (68 - 81 °F)
Humidity	20 - 80% (no condensation) Recommended: 30 - 60%
Air pressure	Between 850 mbar and 1050 mbar
Ventilation	Regular room ventilation     420 m³/hour (14832 ft³/hour).      NOTE     Always required.
Ventilation of the external exhaust of the system:	<ul> <li>Minimum 120 m³ / hour and maximum 200 m³/hour</li> <li>Minimum 4238 ft³ / hour and maximum 7063 ft³/hour</li> </ul>

#### Ink storage conditions

Description	Specification
Temperature	18- 30 <sup>0</sup> C (64 - 86 <sup>0</sup> F) Recommended: 20 - 27 <sup>0</sup> C (68 - 81 <sup>0</sup> F)
Humidity	20 - 80% Recommended: 30 - 60%
Air pressure	Between 850 mbar and 1050 mbar

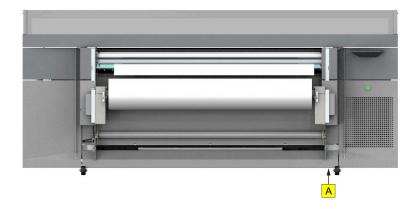
## **Connectivity requirements**

#### Introduction

This section gives information on the IT connection of the printer, IT connectivity requirements and supported interfaces.

#### Location IT connection

The IT connection is at location [A].



#### IT connectivity

- Network connection: Ethernet 100 or 1000 Mbits/sec (preferred) and RJ45.
- Network protocol type: TCP/IP V4 or TCP/IP V6.
- Printer and RIP workstation network connection: on the customer network (highly recommended).



#### NOTE

Do not use 10 Mbit network connections.

A printer not connected to the WWW (World Wide Web) via the customer network is a non-standard installation with impact on the following controller features which request access to the customer network:

- On Remote Service/Technical Service manual update (requires connection to WWW).
- · Automatic download of software updates (requires connection to the WWW).
- · Mail server (with optionally trusted certificates).

#### Supported interfaces

- · Support for a proxy server.
- Connection to external RIP: via the Colorado API and port 9100
- · Web user interface via HTTP
- · On Remote Service (ORS).
- · Automatic update of service documentation

# RIP applications for the system

#### Introduction

Here is an overview of the supported RIP applications.

#### **Overview supported RIP applications**

Name	Support
ONYX Minimum supported version ONYX 21	For detailed information: See: "http://www.onyxgfx.com/"
	Check if an ONYX installation supports the Colorado printers? See "http://owa.onyxgfx.com/webkey/ Default.aspx" For latest information on the Onyx RIP software: See "http://www.onyxgfx.com" and login with your myonyx account.
Caldera Minimum supported version: V14.1	For detailed information: See "http://www.caldera.com"  NOTE For latest information on the Caldera RIP software: See "http:// www.caldera.com" or "http://work- space.caldera.com"
Other supported RIP vendors	Check with the RIP vendor whether the Colorado 1630 is supported

## **Security requirements**

#### Connected device

The operating system used to connect to the network is Windows 10 IoT Enterprise LTSC 2019.

#### TCP ports used

#### Incoming connections:

- TCP port 9100 (TCP RAW printing)
- TCP port 80 (HTTP for Back channel and Web user interface)
- TCP port 443 (HTTPS for secure Web user interface)

#### Outgoing connections:

- TCP port 443 (HTTPS for On Remote Services, and On device Technical Service Manual updates)
- TCP port 80 (Firmware downloads and teamviewer network availability check
- TCP port 25 (Connection to Mail Server).
- UDP port 123 (NTP protocol for time synchronization)

#### URL white list for Firewall/Proxy outbound connection (for On Remote Service)

URL white list for Firewall/Proxy outbound connection (for On Remote Service):

- remoteservices.cpp.canon (for Remote Service Data Connection)
- remoteservices-cs.cpp.canon (for Functional Logging retrieval –including Tracedata)
- firmware.cpp.canon (Azure© Cloud delivery network)
- robin.cpp.canon (for Technical Service Manual update)
- Cmtime.codemeter.com, port 443 (for Code meter Time Server used for licenses)
- \*.teamviewer.com, port 80 and 443 (for Remote Assistance)
- <NTP server name> (NTP server configured in Settings Editor if NTP client is enabled)

#### Deep packet inspection/OpenVPN

- Deep packet investigation must be disabled on the remoteservices-cs.cpp.canon connection.
   This connection uses OpenVPN. Activated deep packet investigation will block the VPN connection.
- OpenVPN must be allowed as application for this device in firewalls/proxy.

## **Training requirements**

#### **Product training**

Maximum performance on the printer requires a properly trained operator.

We train the operator in the use of the printer's hardware and provides a general orientation for using the software at installation. However, this is not a substitute for formal training.

#### **Onyx application**

Operators of the printer should be fully experienced in the operation of ONYX ProductionHouse® or THRIVE. For any operator unfamiliar with its operation, ONYX training is required.

On-site or off-site training courses are available; contact ONYX Graphics Corporation for more information:

See "http://www.onyxgfx.com/".

#### Caldera application

Operators of the printer should be fully experienced in the operation of the Caldera application.

See "http://www.caldera.com/"

# **Chapter 4**Site Preparation checklists

# Shipping address and contact information

#### Shipping address

Company name	
Gate number / name	
Street name and number	
Zip code	
City	

#### Contact person for the delivery / installation

Company name	
Contact name	
Telephone number	
E-mail address	

#### Canon / reseller

#### Service technician for installation / support

Contact name	
Telephone number	
E-mail address	

#### Application specialist / user trainer

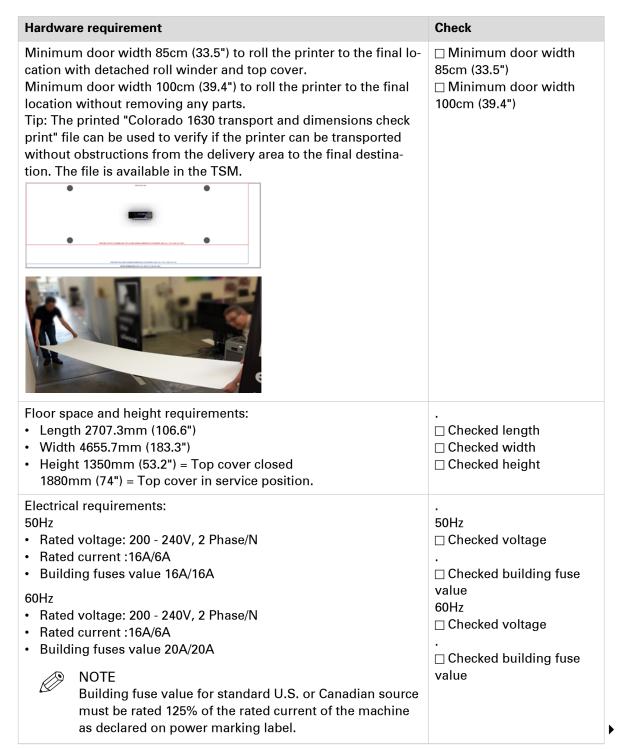
Contact name	
Telephone number	
E-mail address	

## Hardware checklist and floorplan

#### Introduction

This is the Colorado 1630 hardware requirements checklist.

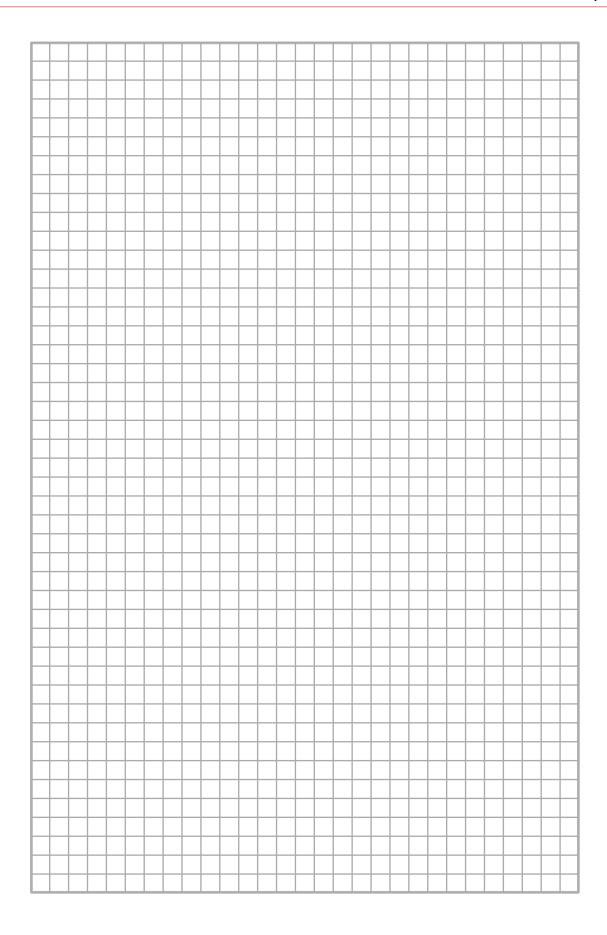
#### Requirements



Hardware requirement	Check
External exhaust: Air outlet of the system connected to an external exhaust. Specification: Diameter outlet: 140mm (5.5") Minimum ventilation 120m³/ hour (4238ft³/hour) Maximum ventilation 200m³/ hour (7063 ft³/hour)	☐ Connected to external exhaust
<ul> <li>Environmental requirements:</li> <li>Temperature 18 - 30 °C (64 - 86 °F).</li> <li>Recommended: 20 - 27 °C (68 - 81 °F)</li> <li>Humidity 20 - 80%. (no condensation)</li> <li>Recommended: 30- 60%</li> <li>Air pressure between 850 mbar and 1050 mbar</li> <li>Room ventilation 420 m³/hour (14832 ft³/hour).</li> </ul>	

#### Map of the location

Please draw the floor plan.



## **Connectivity checklist**

#### Before you begin

A Network Administrator must be present during the installation of the printing solution.

#### Requirements

The Colorado 1630 requires a standard Ethernet cable to connect to the customer's 100/1000 Base-T network.

The IT connection is at location A.



#### Legend:

: to be checked with the network administrator .....: to be filled with the network administrator

Connectivity type	Requirement	
Network media	☐ Ethernet 100 MB/s ☐ Ethernet 1000 MB/s	
Network protocol type	☐ TCP/IP V4 ☐ TCP/IP V6	
Network protocols	<ul> <li>☐ HTTP (TCP port 80) for Web user interface</li> <li>☐ HTTPS (TCP port 443 [*]) for Web user interface</li> <li>☐ (CA) signed certificate (optional).</li> <li>[See Security section for Certificate]</li> </ul>	
	<ul> <li>☐ HTTPS (outgoing connection over Internet) for On Remote Service</li> <li>☐ OpenVPN (outgoing connection over Internet) for On Remote Service .</li> <li>☐ SMTP (outgoing connection to Mail Server)</li> <li>Port (TCP port 25 [*]) :</li> </ul>	
	<ul> <li>Mandatory</li> <li>Raw TCP (TCP port 9100) for printing</li> <li>HTTP (TCP port 80) for Back channel with RIP workstation</li> </ul>	
	[*] Default value, can be changed	

Connectivity type	Requirement			
Network parameters	Printer MAC address:			
Time synchronization (NTP	☐ disable			
client)	□ enable NTP server name: (by default: time.windows.com)			
On Remote Service / Tech-	☐ disable			
nical Service Manual up- date	<ul> <li>□ enable</li> <li>Automatic download of software updates</li> <li>□ disable □ enable</li> </ul>			
Proxy settings Used for On Remote Service and update of Service documentation.	<ul> <li>□ Proxy Server :     Proxy hostname :</li></ul>			
Mail Server (used in case of system administrator password loss)  NOTE If omitted the system administrator password can not be recovered if it is lost.	Mailserver Hostname/IP address:  Port:  Mail recipient (Sender):  Connection with Mail Server  Not secured  Secure via SSL/TLS  Request server to switch to SSL/TLS  Username:  Password: [is provided by System administrator]  Mail Server Certification Authority (Root and/or intermediate certificates):			
Web Browser(s) for the settings editor. (The Web user interface).	<ul> <li>☐ Internet Explorer 11 or greater</li> <li>☐ Edge</li> <li>☐ Firefox v.44 or greater</li> <li>☐ Chrome v.48 or greater</li> </ul>			

# **Security checklist**

#### Introduction

The Colorado 1630 is connected to the network, please find below the checklist related to security.

#### Before you begin

A Network Administrator must be present during the installation of the printing solution.

#### Requirements

Legend:
$\square$ : to be checked with the network administrator
: to be filled with the network administrator

Security specifications	
Operating system	Windows 10 IoT Enterprise LTSC 2019.
Customer system administrator password	☐ Inform the customer that we recommend to change the default system administrator password
OS patches	Consult "http://downloads.cpp.canon" to get the list of security patches to be applied to the printer with the associated installation procedures .
TCP ports used	<ul> <li>Incoming connections:</li> <li>TCP port 9100 (TCP RAW printing)</li> <li>TCP port 80 (HTTP for Back channel and Web user interface)</li> <li>TCP port 443 [*] (HTTPS for secure Web UI)</li> <li>Outgoing connections:</li> <li>TCP port 443 (HTTPS for On Remote Services, and on device Technical Service Manual update)</li> <li>TCP port 80 (retrieve firmware)</li> <li>TCP port 25 [*] (Connection to Mail Server for password recovery)</li> <li>[*] Default value, can be changed</li> </ul>
Service role authorization	☐ Allow software reinstallation from USB
Identity Certificate	☐ Inform customer that a valid certificate is mandatory for Printer settings editor access with a Web Browser via HTTPS
Intermediate / Root certificates (for Mail server and / or Proxy)	ROOT certificates :

Security specifications	
URL white list for Firewall/ Proxy outbound connec- tion (When On Remote Service is enabled)	<ul> <li>remoteservices.cpp.canon (for Remote Service Data Connection)</li> <li>remoteservices-cs.cpp.canon (for Functional Logging retrieval – including Tracedata)</li> <li>firmware.cpp.canon (Azure© Cloud delivery network)</li> <li>robin.cpp.canon (for Technical Service Manual update)</li> <li>Cmtime.codemeter.com, port 443 (for Code meter Time Server used for licenses)</li> <li>*.teamviewer.com, port 80 and 443 (for Remote Assistance)</li> <li><ntp name="" server=""> (NTP server configured in Settings Editor if NTP client is enabled)</ntp></li> </ul>
Deep packet investigation (When On Remote Service is enabled)	Deep packet investigation must be disabled for following connections:  • remoteservices-cs.cpp.canon (for functional logging retrieval)
OpenVPN	OpenVPN must be allowed as application for this device in firewalls/proxy.

## RIP application checklist

#### Introduction

A RIP application is used to generate the print files that are transmitted to the Colorado 1630 printer.

Please check the following RIP and operating system parameters.

 $\square$ : to be checked with the network administrator

#### Before you begin

A Network Administrator must be present during the installation of the printing solution.

#### Requirements

Legend:

: to be filled with the network administrator				
RIP specifications				
RIP	<ul><li>□ Onyx version</li><li>□ Caldera version</li><li>□ Other :</li></ul>			
Operating system of RIP	<ul><li>☐ Windows</li><li>☐ Unix</li><li>☐ macOS</li></ul>			

## License checklist

#### Introduction

The printer is managed through a license. The BASE license is mandatory, otherwise you cannot print.

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	9-		 

print.	
nents	
Legend :  : to be checked: to be filled	
License	
BASE license (mandatory)	
COLORADO License 30 (mandatory)	
In case the Base license is mis	ssing, it can be ordered afterwards.
Information required to obtain license	
License number	

# Service Organization ID (SOID) checklist

#### Introduction

This code is mandatory for printer identification in On Remote Service by the NSO/Partner.

The SOID of the NSO/Partner that sold the system must be used.

#### Requirements

Lege	end :					
	: to b	e filled	in at i	nstallatio	on ti	me.

SOID	
SOID number	
Verification code	

## **Application checklist**

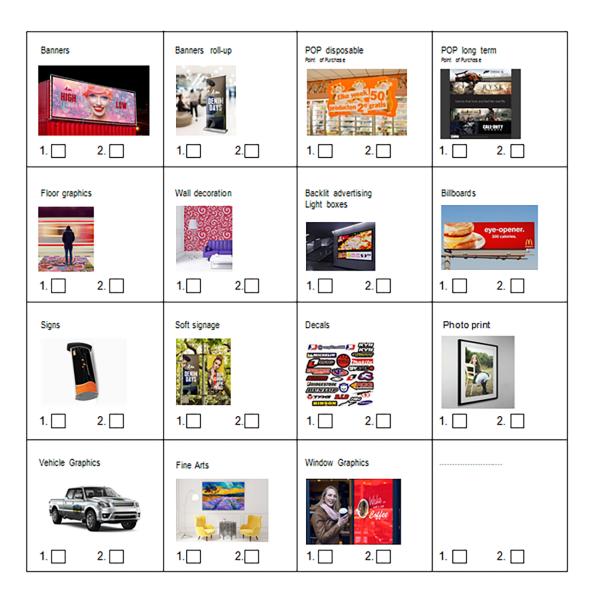
#### Introduction

This overview is important to check the product fit.

#### Requirements

Which applications are produced at this customer site?

1. General for customer side and 2. Planned for the Colorado 1630.



## Media checklist

#### Introduction

Overview of the media, the customer would like to use.

#### Overview

Write down the media types the customer would like to use.

List the first 3 in order of volume-priority. So the media that is printed on most of the volume, is on line 1, etc.

Alternatively, differentiate between the must-do's and the nice-to-have's.

Media brand / supplier	Media type	Media name	Media width	Media thickness	Media verified	Media profile available
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No