



**Production Equipment
Rental Group** part of ~~ESTA~~

PERG Safe Return to Work Guidelines

Precautions for Preventing Transmission of COVID-19
for Camera and Lighting Rental Operations,
Sound Stages, and Production Vehicles

DRAFT

V1.0 dated May 19, 2020

Copyright 2020, ESTA

Notice and Disclaimer

Reference in this document to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by ESTA.

These Guidelines are provided for informational and educational purposes only. Adherence to any recommendations included in these Guidelines will not ensure the prevention of the transmission of COVID-19. Furthermore, the recommendations contained in these Guidelines should not be interpreted as setting a standard of care, or be deemed inclusive of all proper methods of care nor exclusive of other methods of care reasonably directed to obtaining the same results.

The ultimate judgment regarding the propriety of any of the recommendations contained herein must be made by each operator or facility in light of all the circumstances and conditions related to each individual operator and facility.

These Guidelines and the conclusions and recommendations contained herein reflect the best available information at the time the Guidelines were prepared. All users of these Guidelines acknowledge and agree that information regarding the novel COVID-19 virus, its transmission and prevention and safe return to work protocols are constantly evolving based on ongoing and future research and data and that these Guidelines and their recommendations and protocols will likely change over time to reflect new research and data.

The publisher, the authors, and contributors to these Guidelines do not warrant the accuracy or completeness of these Guidelines and assume no responsibility for errors, omissions or updates, or for injury or damage to persons or property arising out of or related to the use of information contained in this document. In no event shall the publisher (or its officers, directors, employees or agents), the authors and contributors be liable for any loss of profit or any other commercial damage or injury to persons or property caused or alleged to have been caused directly or indirectly by this document or its use.

Images, graphics and photographs in this document are either the property of ESTA or are used with permission of the owners. Use of these images by third parties is prohibited unless expressly given with ESTA or any third party it deems necessary. Any unauthorized use of these images may violate copyright laws, trademark laws, the laws of privacy and publicity, and other applicable regulations.

ESTA does not approve, inspect, or certify any installations, procedures, equipment or materials for compliance with codes, recommended practices or standards. Compliance with a recommended practice is the sole and exclusive responsibility of the user and is entirely within their control and discretion. Any markings, identification, or other claims of compliance do not constitute certification or approval of any type or nature whatsoever by ESTA.

In issuing and distributing this document, ESTA does not either (a) undertake to render professional or other services for or on behalf of any person or entity, or (b) undertake any duty to any person or entity with respect to this document or its contents. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstance.

Published By:

Entertainment Services and Technology Association
630 Ninth Avenue, Suite 609
New York, NY 10036
USA
Phone: 1-212-244-1505
Fax: 1-212-244-1502
Email: standards@esta.org

Table of Contents

1	Acknowledgments	5
2	Scope and Purpose	6
3	Definitions	7
4	Brief Overview of the Challenge of COVID-19	9
	4.1 Nature of Coronavirus Spread	
	4.2 Classifying Worker Exposure	10
5	Camera Rental Operations	12
	5.1 Providing a Safe Workplace	12
	5.2 On-Site Customer Safety Protocol	13
	5.3 Technical Set Visits	19
	5.4 Equipment Return Planning	20
	5.5 Equipment Check-in Procedures	20
	5.6 Disinfecting and Cleaning Equipment	21
6	Lighting and Grip Rental Operations	24
	6.1 Employee Protective Measures	24
	6.2 Equipment Pickup and Returns	25
	6.3 Disinfecting and Cleaning Equipment	25
	6.4 Equipment Checkout/Check-in Procedures	26
	6.5 Sub-Rentals/Crew Equipment	27
7	Sound Stages	28
	7.1 Minimum Requirements for Productions Using Stage Facilities	28
	7.2 Recommendations for Owners/Operators of Sound Stages	29
	7.3 Additional Considerations	31
8	Production Vehicles	32
	8.1 Limiting Access to Vehicles	32
	8.2 Sanitizing the Driver's Compartment	33
	8.3 Sanitizing the Truck Box and Trailer	34
	8.4 Driver and Technicians Hygiene	34
	8.5 Vehicle Log	34
9	CDC and OSHA Provisions for Reducing the Spread of Coronavirus	35
	9.1 OSHA Exposure Risk Pyramid	35
	9.2 Health Declarations	36
	9.3 Identifying Symptoms of COVID-19	37
	9.4 Physical Distancing	37
	9.5 Hygiene	37

	9.6 Personal Protective Equipment (PPE)	38
	9.7 Cleaning of Equipment	39
	9.8 Sanitizing Facilities	39
	9.9 Sick Workers	40
	9.10 Contact with Infected Person	41
	9.11 Signage and Communications	41
	9.12 Training	41
Appendix A	Hygiene Precautions on ARRI Products: Lighting Product Range	42
Appendix B	Recommended Best Practices for Cleaning and Disinfecting Chimera Lightbanks & Textiles	44
Appendix C	Tips from Cooke Optics	45
Appendix D	Recommended Cleaning Procedure for Fujinon Broadcast and Cinema Lenses	46
Appendix E	LiteGear Products Cleaning and Disinfection Guidelines	47
Appendix F	Panasonic	52
Appendix G	RED Guidelines for Cleaning	53
Appendix H	Sony Guidelines for Cleaning Products	57
Appendix I	Zeiss	58
Appendix J	Signs and Posters Links	59

1. Acknowledgments

The Production Equipment Rental Group serves the filmmaking community by focusing the collective expertise of its members to shape solutions to address the challenges and opportunities faced by professional rental companies and our production partners. PERG strives to be a guiding voice in the industry to provide a standard of operations and ethics. This document has been created in consultation and with input from the companies below.

Camera Task Group

Rich Abel	AbelCine
Terra Bliss	Panavision
Tom Boelens	Keslow Camera
Stephan Ukas-Bradley	ARRI, Inc.
Kavon Elhami	Camtec
Stephen Kirkpatrick	PC&E
Chris Konash	Panavision
Anna Mayo	MP&E
Gala Napakh	Abel Cine
Paul O'Daniel	PC&E
Jake Roquemore	Keslow Camera
Erik Schietinger	TCS
Oliver Schietinger	TCS
Andy Shippides	ARRI Rental

Grip/Lighting Task Group

Jeff Arnone	Quixote
Jim Arata	Insight Equipment
Carly Barber	Illumination Dynamics/ARRI Rental
Mike Harwood	William F. White International
Gary Paz	Cinelease
Paul Royalty (chair)	LiteGear
Jeff Soderberg	MBS

Sound Stages Task Group

John Cini	High Output, Inc.
Garrett Murck	PC&E
Mitch Thompson	Cinequipt
Meredith Stephens	MPS Studios
Mark Wofford	PC&E

Production Vehicles Task Group

Carly Barber	Illumination Dynamics
Frank Marsico	Insight Equipment
Gary Paz	Cinelease
Jeff Arnone	Quixote
Frank Cano	Illumination Dynamics
Mark Harwood	William F. White, International Inc.

Also Contributing

Scott Taylor	Taylor & Taylor Associates
Harry C. Box	ETA

2. Scope and Purpose

This guidance document recommends measures to be taken to prevent the spread of coronavirus for camera and lighting equipment rental operations, facilities that rent sound stages, and for trucks and vehicles used or owned by rental companies. These Guidelines apply the principles recommended by the CDC and public health officials (as of the date of these Guidelines) to the tasks, equipment, and facilities of the professional rental community.

In order to reopen, health departments may require employers to adhere to reopening protocols. For example, the LA County Department of Public Health has published reopening protocols for some sectors. The LACDPH protocols address:

- Protecting and supporting worker and customer health
- Ensuring appropriate physical distancing
- Ensuring proper infection control
- Communicating with the public
- Ensuring equitable access to services for vulnerable populations

The rental community is dedicated to safely supporting productions. In order to return to work safely while there is still risk of community spread, the rental community recognizes the need to have safety procedures in place to minimize risk of transmission in the course of rental operations. The objective of this document is to provide a unified set of guidelines for the rental industry that address health and safety challenges related to the rental of production equipment and minimize risks to production companies, studios, and customers as well as rental company employees.

In response to the immediate demand for guidance, this DRAFT (v1.0) of these Guidelines has been released for public review and comment. This document has not been reviewed by a health professionals or any government authority or agency. While this document is a “living document” that may be updated and revised from time to time as feedback and additional guidance is received, the publisher, authors, and contributors of these Guidelines do not represent or warrant that such updates or revisions will be made in a timely fashion; therefore, please consult your local health department for up-to-date guidelines, recommendations, and protocols.

3. Definitions

60% alcohol. 60% isopropyl alcohol and 40% water and other ingredients by volume. The CDC recommends that when soap and water are not available to wash hands, a hand sanitizer that contains a 60% solution of isopropyl alcohol can be effective for disinfecting hands.

70% alcohol. 70% isopropyl alcohol and 30% water by volume. In this concentration, alcohol kills microorganisms. However, the water is also necessary because it acts as a catalyst to destroy the cell membranes and it increases the contact time by reducing the rate of evaporation. OSHA recommends cleaning surfaces with a 70% solution.

camera department or camera personnel. Refers to the production's camera crew members (as opposed to the camera department of the rental company).

close contact. A) Being within six feet of a COVID-19 case such as while caring for, living with, visiting, or sharing a room with a COVID-19 case, or B) having direct contact with infectious secretions of a COVID-19 case, such as being coughed on. (CDC)

cleaning vs. sanitizing. Cleaning removes a soil from a surface such as a countertop or piece of equipment. Sanitizing is the application of a sanitizing agent that reduces the number of pathogens on that clean surface. A sanitizer like an alcohol (isopropyl alcohol, propanol, ethanol) destroys disease-causing agents, or pathogens, by breaking apart proteins, splitting cells into pieces or disrupting a cell's metabolism. To sanitize surfaces and equipment: 1) clean, 2) rinse, 3) sanitize, 4) air-dry or wipe after necessary dwell time.

dwell time. A) Dwell time of disinfectant (also called contact time or kill time) is the amount of time disinfectants need to remain wet on surfaces to properly disinfect. B) Sometimes the term is used to refer to the amount of time the virus survives on surfaces.

face covering. A face covering is a cloth material that covers the nose and mouth. New information suggests that a face cover may protect others from infection by helping to prevent some spread of droplets that might be infectious. A face covering can be secured to the head with ties or straps or simply wrapped around the lower face. It can be made of a variety of materials, such as cotton, silk, or linen. A cloth face covering may be factory-made or sewn by hand or can be improvised from household items such as scarfs, T-shirts, sweatshirts, or towels. Acceptable, reusable face covering options for the general public include a bandana, neck gaiter, homemade face covering, scarf, tightly woven fabric such as cotton t-shirts and some types of towels. (LA County Department of Public Health).

face shield. An item of personal protective equipment intended to protect the wearer's face from hazards including flying objects or splashes.

gloves. Synthetic (nitrile rubber, latex) disposable gloves. CDC recommends wearing gloves when you are cleaning or caring for someone who is sick.

N95 respirator. An N95 respirator is a respiratory protective device designed to achieve a very close facial fit and very efficient filtration of airborne particles. The 'N95' designation means that when subjected to careful testing, the respirator blocks at least 95 percent of very small (0.3 micron) test particles. Purchasing a respirator intended for the healthcare setting and health workers (including N95 respirators and surgical masks) is strongly discouraged. Medical respirators and surgical masks are worn for protection by healthcare staff and those workers who provide care to a person who might have COVID-19 or other communicable diseases. (FDA and LA County Department of Public Health).

OEM. Original Equipment Manufacturer.

Safety Data Sheet (SDS). Formerly called Material Safety Data Sheet (MSDS).

social distancing. Per the CDC, social distancing, also called “physical distancing,” means keeping space between yourself and other people outside of your home. To practice social or physical distancing: stay at least 6 feet (about 2 arms’ length) from other people, do not gather in groups, and stay out of crowded places and avoid mass gatherings.

surgical mask (face mask). A surgical mask is a loose-fitting, disposable device intended as a physical barrier to help block large-particle droplets, or splatter that may contain viruses and bacteria, keeping it from reaching the wearer’s mouth and nose (LA County Public Health Department). In the current pandemic, surgical masks are being used as face coverings, primarily to help prevent the **wearer** from spreading the virus. Surgical masks are often referred to as face masks, although not all face masks are regulated as surgical masks (CFR 878.4040).

symptomatic vs. asymptomatic. COVID-19 symptoms may appear 2-14 days after exposure to the virus including cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, sore throat, new loss of taste or smell. A person who is asymptomatic lacks any of these symptoms, including fever.

4. Brief Overview of the Challenge of COVID-19

4.1 Nature of Coronavirus Spread

Coronavirus Disease 2019 (COVID-19), which is caused by a virus called Novel Coronavirus SARS-CoV-2, is a highly contagious disease that can be fatal.

Infected individuals may carry and shed the virus without having any symptoms themselves. An infected person may become symptomatic many days after being infected and becoming a transmitter for the disease. Some people remain asymptomatic or have only mild symptoms.

The virus is transmitted person-to-person via respiratory droplets from an infected person projected from the mouth or nose when they breathe, talk, cough, sneeze, laugh, sing, etc. If the airborne droplets enter another person's nose, mouth, or eyes, that person can become infected.

An infected person can spread the virus to others by working in close proximity. It is possible the virus could also be transmitted by people touching surfaces or equipment where viral droplets have settled and then touching their own nose, mouth, or eyes.

Factors for risk of transmission include how close a person is to an infected person, how long they are near the person, whether or not the infected person projects droplets in the direction of other people, whether the people are indoors or outdoors (freely ventilated areas like outdoors are lower risk).

Recent information has indicated that covering your nose and mouth can slow the spread of COVID-19 because a person may be contagious and not know it. The CDC cautions that cloth face coverings are not a substitute for physical distancing, washing hands, and staying home when ill, but they may be helpful when combined with these primary interventions.

Symptoms include fever, followed by dry cough, loss of taste or smell, chills, shaking, fatigue, body aches, diarrhea, loss of oxygen level in blood, and shortness of breath.

According to the CDC, the respiratory virus may be able to live on surfaces for some amount of time. How long it remains contagious depends on a number of factors. Figure 1 shows estimates of how long coronaviruses, the family of viruses that includes the one that causes COVID-19, can live on different surfaces. For the types of materials used in the manufacture of cameras and lighting equipment, a 72-hour quarantine period is considered to reduce the risk of transmission to a safe level by OSHA and the CDC.



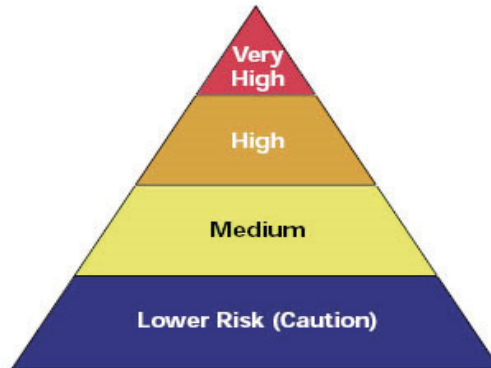
Figure 1. Graphic by Business Insider showing data for how long the new coronavirus can live on surfaces from the New England Journal of Medicine.

4.2 Classifying Worker Exposure

According to OSHA, worker risk of occupational exposure to COVID-19 during an outbreak may vary from very high, high, medium, or lower (caution) risk. The level of risk depends in part on the industry type, the need of contact within six feet of people known to be, or suspected of being infected with COVID-19, or requirement for the repeated or extended contact with persons known to be, or suspected of being, infected with COVID-19. To help employers determine appropriate precautions, OSHA has divided job tasks into four risk exposure levels: very high, high, medium, and lower risk.

The Occupational Risk Pyramid shows the four exposure risk levels in the shape of a pyramid to represent probable distribution of risk. Most American workers will likely fall in the lower exposure risk (caution) or medium exposure risk levels.

Occupational Risk Pyramid for COVID-19



Very High Exposure Risk - Healthcare workers (e.g., doctors, nurses, dentists, paramedics, emergency medical technicians, laboratory personnel, etc.)

High Exposure Risk - Healthcare delivery and support staff, medical transport workers.

Medium Exposure Risk - Medium exposure risk jobs include those that require frequent and/or close contact with (i.e., within six feet of) people who **may be infected** with COVID-19 but who are not known or suspected COVID-19 patients. In areas where there is ongoing community transmission, workers have this level of exposure risk if their job involves contact with the general public (e.g., family members who attend schools, high-population-density work environments, some high-volume retail settings). In areas without ongoing community transmission, workers have this level of exposure risk if their job involves frequent contact with travelers who may return from international locations with widespread COVID-19 transmission.

Lower Exposure Risk (Caution) - Lower exposure risk (caution) jobs are those that do not require contact with people known to be, or suspected of being, infected with COVID-19 nor frequent close contact with (i.e., within six feet of) the general public. Workers in this category have minimal occupational contact with the public and other coworkers.

OSHA provides recommendations for each of the risk categories above. Please see Section 9 of this document for more information.

5. Camera Rental Operations

This section provides operational safety guidance and suggested protocols for camera rental equipment companies, their employees and their customers. The guidance follows recommendations of OSHA, CDC and was developed in consultation with IATSE, Local 600.

5.1 Providing a Safe Workplace

Rental companies should take proactive steps to safeguard the health and safety of their staff and their customers, as well as implement process updates in order to mitigate the risk of exposure. Some important safety practices are listed below.

Keep a building log, with contact information when possible, of anyone that enters the facility, including employees, customers, and delivery personnel in order to aid with contact tracing in the event of a COVID-19 contraction. If possible, confirm with applicable city guidelines to determine the maximum number of people that are safe to be in the building/specific areas and work within these guidelines. Individuals who have not been approved ahead of time should not be allowed into the building in order to keep this number in check.

Clearly define and sequester client areas to be safely distanced (at least six feet) from employees and other customers. Help identify the proper amount of distance that should be maintained, such as with tape or floor signs.

Implement health checks safely (see [CDC screening guidelines](#)¹) and respectfully and with measures in place to ensure confidentiality in accordance with any applicable privacy laws or regulations. Consider establishing routine, daily health checks for employees and customers on arrival. Consider thermal scanning or other technologies or establish a reliable system for self-reporting before work in order to identify employees or customers that may be ill. Watch for other symptoms such as cough and shortness of breath.

A Health Declaration Document may need to be filled out daily or weekly, depending on state or local guidelines.

Provide personal protective equipment such as masks, gloves and protective eyewear if necessary.

- Provide easily accessible sanitization stations in all common areas of the facility and restrooms that may include disinfectant wipes, tissues, and hand sanitizer.
- Increase the frequency of sanitization of high-touch areas.
- Post safety signage in areas of special concern such as high traffic areas, restrooms, hallways and client areas. Whenever possible, traffic flow within the rental company should be directed by signage so that movement is in one direction only (hallways, stairwells, etc.)
- Require employees to wash their hands often with soap and water for at least 20 seconds regularly, upon arrival to work, after using the restroom, any time they exit and re-enter your facility, before eating, as well as after blowing their nose, coughing, or sneezing.
- Limit restroom use to one person at a time. If possible, dedicate a restroom for client use only.

¹ See FAQ question: “Should we be screening employees for COVID-19 symptoms (such as temperature checks)? What is the best way to do that?”

- Provide a minimum six feet distancing between employee work areas. If safe distancing cannot be easily accomplished, consider strategies such as staggered work hours.
- Limit the number of employees on site by identifying personnel who must be in the facility in order to perform their essential job functions.
- Reduce and limit common areas and amenities such as public food and beverage stations that may encourage unsafe practices.
- Create a written office safety protocol for your employees to read, acknowledge and to follow.

5.2 On-Site Customer Safety Protocol

5.2.1 Introduction

It is important to remember that the best way to mitigate risk of exposure is to limit the number of personnel in the office at any given time. Rental companies may consider accommodating a “remote” prep option when it is appropriate, to limit the number of people at a location. Remote prep’ means customers prepping gear at an off-site space. It should be noted that any “remote” prep will likely result in a longer prep and most certainly the need to travel back and forth to the remote location as equipment is added, dropped, and/or exchanged. As an example, it is recommended that remote preps are completed an additional 48 hours prior to the shoot date so that equipment adds and exchanges can be coordinated with the rental company the day before shooting begins.

For returns, customers that would like to do an equipment “check-in” should be encouraged to do so “remotely”. This process would be identical to an on-site check-in but at a remote location determined by production. Equipment would then be returned to the rental company by a production delivery service and rental company will perform standard check-in procedures.

5.2.2 On-site Checkout Procedures

As you welcome customers into your facility, it is important to provide an environment that provides safety and comfort for both employees and customers at all times. The following practices are recommended.

5.2.2.1 Prepare Your Facility

Assess the facility and implement proper controls within the workplace:

- Limit customer entrances into the facility and be sure to have clear signage at entrances that states that face coverings must be worn.
- Create a designated reception and check-in station where all customers stop upon arrival and cannot avoid. Be sure that the customer and employee safe distancing of six feet can be maintained at all times.
- Provide well defined customer areas that are safely distanced from employees and from other customers. Provide ample signage and implement physical barriers where necessary so that the customer understands where they are permitted to go.
- Limit or eliminate customer access to amenities such as coffee stations, lunchrooms and refrigerators.
- Create a customer sign-in sheet that will be maintained by rental company personnel to record name, the time and date of arrival, and email or phone number.

- Establish a remote communication method (such as texting or calling from the customer's own mobile phone) for customers to communicate issues, additions, and exchanges without having to seek out or approach rental personnel.
- Create a neutral area where you can provide added or exchanged equipment during a checkout.
- Create an exchanged items area and a process for equipment to be properly sanitized before being put back into rental inventory.
- Establish a policy that crew owned equipment, tools and carts will not be handled by rental employees and may not be received prior to an equipment prep. All personal crew items must be handled only by crew members and must not be left behind after the rental leaves the premises.
- Establish a policy that any rental house equipment that comes into a prep bay will be sanitized and ready to be handled prior to arrival. Devise a method to indicate contents of cases have been sanitized.
- No smoking or vaping should be allowed in the facility at any time

5.2.2.2 *Prepare Your Customer*

- In anticipation of the visit, provide your customer with a written outline of your in-house customer policy and a link to the PERG Safe Return to Work Guidelines. Customers should be specifically advised to read the proper disinfecting procedures as well as guidelines on proper use of PPE. This will allow them to be familiar with proper protocol and know what is expected of them upon arrival.
- Set expectations. Advise clients that more time may be needed for their production team and our employees than usual, because of the necessity to follow safe practices.
- Schedule a pre-prep call or discussion with the camera personnel in order to best accommodate their needs and minimize equipment changes and modifications during the prep.
- Schedule all customer visits and work hours in order to prevent overcrowding and do not allow walk-in customers until such a time that it is safe to do so.
- Request the names and number of production personnel that will be performing the prep to make appropriate space accommodation.
- Discuss strategy for alternating prep days or staggering preps over the course of a day to accommodate physical distancing and space needs which may result in longer preps.
- Create digital paperwork and signatures to the extent possible.
- Advise the customer of these important details:
 - All production personnel should wear a face covering and will be expected to maintain safe distancing at all times.
 - Production personnel may be asked to go through a thermal scanner or a temperature taking station.
 - Crew-owned equipment, tools, and carts must be properly sanitized prior to being brought into the facility and will not be handled by rental employees. These items may not be received prior to an equipment prep and must be personally brought into the space by the crew members that will be working on site. All personal crew items must be handled only by crew members and must not be left behind or stored after the rental leaves the premises.

- Crew is expected to bring their own tools in order to perform their work and that sharing tools within the shop is not permitted.

5.2.2.3 Upon Customer Arrival

- Make sure your customer is wearing a face covering and be prepared to offer them one if they are not.
- If your facility is implementing temperature checks, have them go through the thermal scanner or temperature check station.
- Provide them with a verbal code of conduct while on site such as: proper distancing protocol (six feet), restroom policies, and customer zones vs employee areas.
- Have camera crew check in and agree to follow the company and PERG protocols.
- Crew should be introduced to their prep tech who will be the **primary** person they will interact with while at the rental facility.
- While adhering to proper six-foot distancing measures, walk them to the area that they will be working in and explain they are not to leave this area unless it's to exit the building, use the restroom, or head to a scheduled lens test.
- Announce their arrival to the staff so that they are aware the customer is in the building.
- To the extent possible, clear hallways, elevators, entrances when outside equipment is being brought in so that social distancing can be adhered to while moving carts and equipment into the building.

5.2.2.4 During the Prep

- Review the remote communication methods that you have established in order to communicate issues, additions and exchanges without having to seek out or approach rental personnel.
- All items that will be rented and brought to the prep area will be sanitized and pre-scanned to the rental contract. The rental employee will not have contact with the equipment thereafter.
- Equipment added during the prep will be scanned and brought to the neutral area for the client to retrieve.
- Exchanges will be placed in a bin or designated area. Consider using a two-bin process, one for adds and the other for drops. Drops will be removed from the contract and disinfected before being returned to their storage area.
- The crew will be responsible to “case out” all of the equipment upon completion of the checkout and prepare for the load out without the assistance of rental personnel.
- Rental personnel should avoid entering the prep area while the client is on site unless there is an equipment issue that can only be resolved by their direct involvement.
- Rental personnel should not access the space or room accommodating multi-day preps overnight or in the absence of camera crew without informing camera crew

5.2.2.5 After the Prep

- When the prep is complete and the equipment has left the building, the rental company should fully clean and sanitize the space where the checkout occurred.

- Whenever possible, it is recommended to do this after 24 hours, however protocol should be in place in order to do this safely inside of that time period if the space will need to be turned over quickly.
- Employees should follow the defined sanitization guidelines.

5.2.3 Alternative Equipment Prep Procedures

In addition to on-site prep, which accommodates customers at the rental facility adhering to strict physical distancing and work safety guidelines, other prep methods may be considered. Actual procedures may vary depending upon how the production plans to prep and test the equipment prior to shooting.

A **remote prep** is when the equipment is picked up or delivered to the production for the camera crew to perform the preparation that would normally take place in the rental company. Prior to the equipment leaving the rental facility, it is recommended to carefully review the entire equipment package with the appropriate production personnel (camera crew) via a video call. It is recommended that remote preps are completed 48 hours prior to the shoot date so that equipment additions and exchanges can be coordinated with the rental company the day before shooting begins.

Other potential prep procedures are under consideration and discussion with appropriate industry stakeholders.

5.2.4 Equipment Pickups and Returns

The primary challenge during an equipment pickup or return is to minimize the interaction between the rental company's employees and the customer or courier while ensuring a safe transfer of equipment.

5.2.4.1 Prior to Pickup

It is recommended to inform the customer that all equipment exchanges will need to be scheduled in advance in order to maintain a safe and orderly environment. For any pickups and returns that must occur inside the facility, establish a defined pickup and return zone at the point of entrance for the customer along with proper PPE requirement signage. Customers that are picking up gear should not be permitted to go outside of this defined area. It is also highly recommended that these customers are not permitted to use onsite restrooms, unless a dedicated client restroom can be provided.

Prior to an equipment pickup, the rental company should:

- Schedule the pickup, being careful that it will not overlap with other activities that may cause congestion in the facility or on the loading dock. Advise the customer to arrive within a five minute window of the scheduled time or to call if they may arrive outside of that window.
- Request and record the names of production personnel or courier service who will be picking up the gear in advance. Advise the client that ID of personnel will be checked prior to release of gear.
- Advise the customer that all personnel who will be picking up equipment must wear appropriate personal protective equipment including a face covering, that they will be expected to maintain safe distancing with rental company personnel during the exchange and inform them whether restrooms are available for their use.
- Provide an option to enable the production to sign the rental contract and receipt of equipment digitally if possible. The rental agreement could be signed prior to pickup to minimize point of contact.

- Rental company employees should be clearly advised on the established equipment exchange protocols, wear a face covering and remain six feet away from the customer at all times. In the event the customer is not following distancing guidelines or does not have the required PPE, the employee or their manager should advise them of the established safety protocols and that they must be adhered to before proceeding. Transfer of equipment should occur on a loading bay or at the defined pickup zone.

During the pickup or delivery it is recommended to adhere to the following:

5.2.4.2 Inside Pickups.

For inside pickups, all gear should be preloaded on hand trucks or carts and brought to the defined pickup zone just prior to pick up time to ensure a prompt exchange.

- Upon arrival, have the production representative provide identification to rental company personnel while maintaining a safe distance. The rental company employee should verify the identity of the production representative before releasing the gear. If virtual signature was not obtained beforehand, have the production representative sign in a safe distancing manner. If pens are used, they should be sanitized after each use with disinfectant wipes or gifted to the production representative and not taken back after use.
- Ask the production personnel to take the equipment out to load their vehicle and return any hand trucks or transport carts once completed. All handles should be sanitized after each use by rental company personnel.
- Once production receives the equipment, a member of the camera department should verify the equipment contents.

5.2.4.3 Outside Pickups.

Rental company personnel will transport the equipment to the edge of the loading dock at the time of arrival.

- Upon arrival, have the production representative provide identification to rental company personnel while maintaining a safe distance. The rental company employee should verify the identity of the production representative before releasing the gear.
- If virtual signature was not obtained beforehand, have the production representative sign in a safe distancing manner. If pens are used, they should be sanitized after each use with disinfectant wipes by rental company personnel or gifted to the production representative and not taken back after use.
- Ask the production personnel to load the gear into their vehicle.
- The rental company personnel will retrieve any hand trucks or transport carts and bring them back into the facility. All handles should be sanitized by rental company personnel after use by others.
- Once production receives the equipment, a member of the camera department should verify the equipment inventory is complete and as requested.

5.2.4.4 Inside Returns.

Just before the scheduled time of arrival, the employee will ready any transport hand trucks or carts for the production to use and leave them in the delivery zone.

Upon arrival, offer production personnel to use the hand trucks and carts to load the equipment onto. This provides easy movement of the gear after the customer leaves and will reduce time spent by the rental company personnel in the customer zone.

The customer will bring the equipment into the facility on carts.

5.2.4.5 Outside Returns.

At the time of arrival, the rental company personnel will transport any hand trucks or carts for the production to load the gear onto.

- Production personnel should be asked to load the equipment onto the hand trucks and carts or into a designated area.
- The rental company personnel will bring the equipment into the facility.
- During the pickup and delivery process, if the amount of equipment warrants multiple trips the employee must continue to follow procedure of proper distancing until the job is completed.

Upon completion of the job, the rental company personnel should disinfect any of the common areas and equipment used for transport. This includes using disinfectant wipes or solutions to clean surfaces, doorknobs, elevator buttons, cart handles, etc. Rental company employees should follow the defined sanitization guidelines.

When finished handling returned cases and equipment, rental company personnel should remove protective gloves (Figure 2) and promptly wash their hands.



Figure 2. Safe procedure for removing gloves.

5.3 Technical Set Visits

In order to ensure safety of personnel and to protect the quarantined nature of a set, technical set visits should be limited at the outset of production resumption. If a rental company employee does need to visit a set to provide technical support, the guiding protocols should follow the safety and social distancing procedures described in Onsite Checkout procedures section, and the protocols required by the production.

- Contact production for approval for the set visit
- Coordinate the timing of the set visit to prevent overcrowding and minimize interaction with production personnel that are on set.
- Coordinate with production to determine that all production personnel will be following PPE and physical distancing (six feet) guidelines and to adhere to the production's safety standards.
- Bring tools to set to avoid having to share with production personnel. Wear appropriate PPE on set as determined by health guidelines (face protection, gloves, eye protection if necessary).
- Follow social distancing protocols (six foot separation).
- Wash and sanitize hands (and PPE if possible), upon arrival to set and as soon as possible following the set visit.

5.4 Equipment Return Planning

Before the equipment returns it is important to establish expectations with the customer and they should be made aware that additional time will likely be needed to quarantine, receive and clean gear that is returned. Therefore, it may take additional time to notify the customer of any lost or damaged equipment. It is recommended that rental companies review their terms and conditions to consider modifying them to ensure they have allocated enough time in their procedures to ensure safety for both crew and employees.

It should also be established with the customer in advance how they will wrap the package for return.

Whenever possible the customer should be encouraged to perform a **remote wrap**, meaning that they should remove all personal gear from the package, perform an inventory of the gear to be returned and return only equipment that belongs to the rental company.

The rental company should make it clear that no personal items such as carts, tools, equipment or other items not owned by the rental company are permitted to return to the rental facility.

If the customer cannot perform a remote wrap of the equipment before returning they must get approval from the rental company prior to returning and establish how the process will be handled.

An **on-site wrap** is a process where the rental company will allow the customer to wrap the equipment at their facility. It is recommended to follow the same procedures outlined in the On-Site Checkout section above.

- All personal items must be handled only by the camera crew.
- All personal items must leave with the camera crew.

5.5 Equipment Check-in Procedures

It is recommended that rental companies determine their own best practices and safety protocol of scanning and checking in equipment by employing a combination of quarantining and disinfecting strategies in order to ensure safety for their employees. These methods should be advised by the information that is provided in this document, and the following important details should be well considered.

- Scan-in should be performed by a single employee in order to provide for proper distancing in the returns area. Proper PPE should be worn.
- Clear methods should be established for disinfecting and wiping down cases and equipment if an ample quarantine period is not possible.
- All employees performing scan-in and returned equipment testing tasks should be well informed of which cleaning and disinfecting products are safe to use for various applications. Information and reference material is provided within this document and includes:
 - General recommendations for sanitization
 - General recommendations for cleaning
 - Manufacturer guidelines
 - General information regarding COVID lifespan on surfaces.

5.6 Disinfecting and Cleaning Equipment

It is important to understand that disinfecting and cleaning are two separate processes. Disinfecting is a process that uses a chemical designed to destroy microorganisms like viruses and bacteria. Cleaning removes dirt, grease, dust and other contaminants.

The information below represents general guidance to disinfect and clean professional motion picture equipment while there is risk of transmission of COVID-19.

5.6.1 Key Cleaning Points

It is recommended to disinfect all equipment surfaces where possible, with special attention to high-touch areas of the equipment. Beyond the disinfection process, standard cleaning practices should also be followed. The cleaning process should be well considered so that the equipment is not harmed by increased cleaning. It is important to remember that this process is critical in order to ensure the health and safety of rental company employees and customers.

In addition, when presenting equipment to the customer all equipment should be organized, free of debris, loose tape, labels, dirt and dust in order to provide reassurance that nothing has been overlooked in the process.

Some critical areas of importance when disinfecting equipment are listed below.

Cases. All exterior surfaces and particularly the handles.

Cameras. The entire camera body, exterior surfaces and most importantly the eyepiece, all handles, buttons, touchscreens, lens mount, battery levers and all functional touchpoints. Also, camera hand grips and all other accessories that are attached to the camera manually must be disinfected.

Lenses. The entirety of all lenses including all exterior operational surfaces and handgrip servo systems. Lens elements should be disinfected with 70% isopropyl or 70% ethyl alcohol.

Monitors and touchscreens. LCD and OLED monitors screens should be wiped down with a clean microfiber cloth and a PH neutral alcohol free, ammonia free, and solvent free cleaning solution free from fluorine. Apply spray on cloth and clean as necessary with very light pressure on the display screen. Do not spray solution directly onto the LCD or OLED panel. An appropriate OEM/aftermarket clear screen protector is highly recommended. All exterior surfaces as well as all buttons, the screen and connectors should be disinfected.

Batteries. All exterior surfaces.

Matte box. All exterior surfaces may be disinfected with standard products. Inside of the matte box should be disinfected using a mild product that will not whiten the appearance of the matte finish such as 70% ethyl alcohol. DO NOT use 70% isopropyl alcohol in this case.

Tripods. All exterior surfaces and touchpoints on the tripod head.

Accessories. All exterior surfaces with particular attention paid to touchscreens, handles, buttons and connection points.

ALWAYS:

- Disinfect the eyepiece of a camera or any mechanism for viewing before putting your eye to the eyepiece. Technicians and camera crew should have their own eyepiece chamois and use it when viewing through a camera. The chamois should be cleaned and disinfected daily or replaced.
- Wear a face covering and gloves when disinfecting and cleaning camera equipment.

WARNING - If the facility or stage where the camera equipment is being used utilizes an aerosolized electrostatic cleaning procedure, it is critical to pack equipment into sealed cases or cover all camera equipment.

WARNING - When cleaning equipment, saturate the microfiber towel with a cleaning agent, rather than directly applying it to the equipment. Direct application can seep into sensitive areas of the equipment and create damage.

5.6.2 Products for Disinfecting

See the appendices of this document for manufacturer recommendations for cleaning and disinfecting equipment. It is important to be aware of which disinfecting products are safe to use on camera equipment in order to be sure that you do not damage the gear. A partial list is given below.

- 70% isopropyl alcohol is a good, readily available solvent for disinfecting in most applications but it can damage some surfaces such as circuit boards and painted surfaces.
- 70% ethanol is safe to use on most surfaces.

WARNING - DO NOT use any strong or aggressive cleaning agents such as Methanol, Acetone, Benzene, Acids, or Bleach on cameras, camera accessories, or lenses as they may damage optical coatings, equipment housings and LCD screens, electronics and many other surfaces. A bleach solution may be used on cases, for example.

5.6.3 Cleaning References

US EPA-Recommended Disinfectants Safe for Electronics

- Clorox Disinfecting Wipes
- Clorox Healthcare Bleach Germicidal Wipes
- Clorox Commercial Solutions Hydrogen Peroxide Cleaner Disinfectant Wipes
- Lonza Disinfectant Wipes
- Lysol Brand Clean & Fresh Multi Surface Cleaner (20% cleaner solution to water ratio)
- Purell Professional Surface Disinfectant Wipes
- Sani-Cloth Prime Germicidal Disposable Wipes

More information from the CDC on disinfecting procedures for COVID-19 can be found here:
<https://www.cdc.gov/coronavirus/2019-ncov/community/home/cleaning-disinfection.html>

More information from the EPA on recommended disinfectants for COVID-19 can be found here:
<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

DO NOT use the following materials when cleaning/disinfecting electronics:

- Isopropyl Alcohol at concentration > 70%

- Methyl Alcohol or Ethyl Alcohol at concentration > 35%
- Thinner or benzine
- Strong alkalines
- Strong solvents
- Acids
- Detergents with fluoride
- Detergents with ammonia at concentration > 1.6%
- Abrasive cleaners
- Detergents with abrasives
- Formula 409
- Steel wool
- Sponges with abrasives
- Steel blades
- Cloth with steel threads

6. Lighting & Grip Rental Operations

The intent of this section is to provide operational safety guidance and suggested protocols for lighting and grip rental companies, including information and guidelines for safe cleaning and sanitization of lighting and grip equipment used in the production marketplace. These Guidelines observe OSHA and CDC requirements.

Productions of all sizes require at least some type of lighting and grip equipment independent of the equipment provided specifically for camera. This equipment can be light fixtures, cable, portable power distribution, stands, clamps, textiles and much, much more. Often, this equipment can make up the largest amount of gear available on a set, and is handled by many members of the crew. Keeping the equipment clean and sanitized to the standards recommended by health and safety advisors and CDC recommendations is critical for the protection of talent, crews, production management and rental company personnel. It is the respective responsibility of the rental staff, vehicle drivers, and the production crew handling the equipment and other transported materials to follow all agreed safety procedures.

6.1 Employee Protective Measures

- Employees should practice safe physical distancing at all times while doing their jobs.
- Additional protective measures may be in order to encourage physical distancing in the warehouse, for example plexiglass “walls” or moving “racks” should be considered to separate employees who may be working in close quarters while pulling or returning equipment to racks..
- PPE for employees should be provided by the rental company and should be worn at all times while at work. This may be nothing more than an approved face covering or mask with gloves or may involve more extensive PPE depending on rental company or local and state guidelines.
- It is suggested employees should be asked to bring their own food from home or the rental company may elect to provide boxed, individual lunches and restrict employees from leaving during the day to avoid cross contamination.
- Floor markings and arrows may designate safe areas, safe distances, or a specific traffic pattern around the building and/or warehouse racks to ensure physical distancing is achieved as much as possible.
- Safety Data Sheets (SDS) should be made available for all cleaning and disinfecting products being used during this time.
- Require employees to wash their hands often with soap and water for at least 20 seconds regularly, upon arrival to work, after using the restroom, any time they exit and re-enter your facility, before eating, as well as after blowing their nose, coughing, or sneezing.
- Work areas should be cleaned and sanitized before the start of the shift, during, and then again at the end of every shift.
- Shifts may be staggered to allow for a smaller number of people inside the building at any one time.
- Acrylic or plexiglass shields may be placed in office or work areas where employees talk to one another or come in contact with crew.

- The employer should provide a logbook or digital log for both employees and crew to log in and log out when entering and leaving the building. If pens are used, they should be sanitized after each use or kept with the employee.
- Consider thermal scanning or other technologies in order to identify employees or customers that may be ill upon arrival. A Health Declaration Document may need to be filled out daily or weekly, depending on state or local guidelines.

6.2 Equipment Pickup and Returns

The primary challenge during an equipment pickup or return is to minimize the interaction between the rental company's employees and the customer or courier while ensuring a safe transfer of equipment.

Equipment pickups should take place either outside the facility or in a neutral and controlled area like a loading dock. Precautions should be taken so non-employees do not enter the building.

It is recommended that all rental paperwork to reviewed and "signed" digitally.

If non-employees must enter the rental area to collect equipment, or review a rental order, then proper PPE should be worn, and safe physical distancing should be practiced.

Pickup or Will Call desk should have acrylic or plexi protective shields in place, and employees should be able to conduct their job while maintaining safe physical distancing. Floor markings should indicate the proper distance, and floor traffic patterns should be in place.

When delivering to a location, the driver should remain properly distanced from crew at all times. Equipment should be taken to the gate, or the back of the truck, where the crew can collect with the driver at a safe distance.

Employee drivers should wear recommended PPE at all times when working around crew or other set personnel, at minimum a face covering or mask. Gloves should be work for handling non-sterilized or contaminated equipment.

Only rental company personnel should load equipment into vehicles on check out. For delivery, only a minimal number of personnel should load the sanitized equipment into the vehicle at the facility's loading dock. Personnel should maintain physical distancing and wear appropriate PPE.

On return, it is recommended only a minimal production crew, appropriately suited with PPE, bring the equipment to the vehicle liftgate or tailgate after the cargo is sanitized at the location or stage. On return to rental facility only rental company personnel should unload the vehicle.

If feasible, all paperwork should be digitized to eliminate an additional touch point both with the paper and pen. If a pen is used, it should be sanitized after use.

6.3 Disinfecting and Cleaning Equipment

It is important to understand that disinfecting and cleaning are two separate processes. Disinfecting is a process that uses a chemical designed to destroy microorganisms like virus and bacteria. Cleaning removes dirt, grease, dust and other contaminants.

All equipment should be sanitized per manufacturer's recommendation before being placed back on the shelf, so that everything on the shelf is clean and ready.

Rental companies should create a work-flow that does not allow incoming “used” equipment from production to be cross-contaminated with sterilized equipment that is being pulled for an order. If time permits, designate a quarantine area for “used” or non-sterilized equipment.

It is recommended that equipment either be appropriately sanitized or be quarantined for up to 72 hours by the rental company before being checked in and put away. If quarantined, the production should be advised that there will be a delay in determining if there was loss or damage on a rental.

In addition to wiping equipment with an appropriate solution like isopropyl alcohol, and/or other approved disinfectants, the rental company may also use an electrostatic sprayer to disinfect the equipment. Section 5.6.3 lists EPA-recommended disinfectants safe for electronics, but see also the appendices of these Guidelines or check with the original equipment manufacturer (OEM).

When there isn't a sufficient method to sanitize a piece of equipment, like a textile for example, the equipment should be quarantined for at least 72 hours.

When applicable, once equipment is sanitized, a tag or sticker should be placed on the gear to indicate that it was cleaned and when. In addition, certain items may be sealed in bags, and dated to further indicate that cleaning has taken place. Large quantities of equipment can be marked clean in bulk, like clamps or hardware in a milk-crate.

Prior to cleaning the various surfaces of the equipment with sanitization products, it is recommended that the manufacturers SDS product sheet be reviewed. Certain surfaces may require different sanitizing products to protect from damage.

There are wipes that do not contain bleach that may disinfect without surface damage.

Disinfecting solution dwell times vary by product and should be based upon OEM recommendations. It is important not to wipe sanitizing products until full dwell time has been met.

If aerosolized disinfectants or electrostatic sprayers are used, caution should be taken with globes and electronic components. Check with manufacturer recommendations prior to using.

Soft surfaces such as cloth, vinyl, leather, and nonwoven materials should be cleaned with the appropriate solutions following manufacturers procedures.

6.4 Equipment Check-Out/Check-In Procedures

It is highly recommended at this time, that all non-employees be restricted from entering the rental facility. Equipment check-outs can be handled by rental-company employees and then rechecked by the crew at the location. A strict no-contact rule should be in place where employees are not to come in contact with crew.

In situations where crew is allowed in the building, the following is recommended:

- It is recommended that face coverings or masks be worn at all times, as well as appropriate PPE for the task at hand which may include gloves, face shields, and protective eyewear. PPE may be made available by the rental company and/or sold through their expendable channels.
- Safe physical distance should be practiced between crew and employees as well as crew with other crew members.

- Crew quantity may be limited by the rental company, and it is recommended that any crew be kept to the absolute minimum for the task.
- Wash and sanitization stations should be present for crew.
- Crew should only work in their designated check-out area, and should not be allowed access to the rest of the facility.
- Crew should sign in upon entering the facility, and sign out when leaving. This may be a digital or paper log. If paper, then the pen should be sanitized after each use.
- It is suggested that crew should be asked to bring their own food from home or the rental company may elect to provide boxed, individual lunches and restrict crew from leaving during the day to avoid cross contamination.

Equipment may be checked out and/or delivered so that a minimum 72-hour quarantine window can be achieved.

For larger shows requiring drop loads, equipment may be requested for those locations well in advance, minimally one week, with multiple drop loads being requested with a single delivery.

Crew areas may be separated from other areas or other crews by movable acrylic or plexiglass “walls” or other barriers.

6.5 Sub-Rentals/Crew Equipment

The pickup or delivery of sub-rentals should be scheduled for a specific time window to minimize contact with other people.

Outgoing sub-rented equipment should come back to the rental company first and go through the return cleaning protocol before it is made available to the crew or be marked for pick up or delivery.

Crew equipment billed through the rental company should follow the same procedures as outgoing sub-rented equipment in order to maintain safety.

Crew equipment not being billed through the rental company may not be allowed in the facility.

7. Sound Stages

7.1 Minimum Requirements for Productions Using Stage Facilities

Prior to production, the production company should provide management of the stage facility with their written policy for preventing contagion of COVID-19. The productions' policies should include at least the provisions listed in this section.

While a stage facility can require protocols for the protection of their customers and their own staff, ultimately for the protocols to be effective, the production must take responsibility for enforcing their own protocols among their crew as well as the protocols required by the facility. It is important for productions to recalibrate their expectations. The protocols necessary to address the spread of infection will take longer than usual, and workers will initially find the new mode unnatural and want to revert to normal work methods.

7.1.1 Health Declarations

The production should, on a daily basis, obtain a written or digital declaration from all crew and contributors at the start of production stating:

- They are not suffering from any coronavirus symptoms and have not had any symptoms within the previous 7 days.
- They have not (as far as they are aware) been in contact with anyone with coronavirus symptoms within the previous 14 days.
- They will declare immediately any onset of symptoms or contact with anyone who has symptoms of coronavirus.

Employees that may have an [underlying health condition](#) that might make them particularly vulnerable to coronavirus can make this known to the employer and request reasonable accommodation. The ADA does not allow the employer to exclude the employee, or take any other adverse action, solely because the employee has a disability.

Require anyone who is sick to stay home.

Anyone developing symptoms while at work should be sent home and told to seek medical advice.

7.1.2 Physical Distancing

Productions' protocols should establish proper physical distancing.

- Limit number of people in all areas to essential personnel only.
- Maintain physical distancing of no less than six feet whenever possible.
- Make six foot distance markings on the floor in environments where people need to line up.
- Eliminate physical contact with others, such as handshakes, hugs, etc.
- Stagger work so that delivery of equipment, construction, set decorating, rigging activities, and filming activities do not overlap. Consider scheduling a prep or pre-light day to lessen the amount of overlapping work on a single day.

7.1.3 Personal Protective Equipment

Productions' policies should establish when masks or face coverings must be worn. Depending on the risk of transmission for the job being performed (e.g. how closely people are working to one another), masks or face coverings may be required to be worn at all times. PPE is to be provided by the production or the individuals.

Utilize other appropriate Personal Protective Equipment (PPE), including but not limited to gloves, goggles, face shields, masks that cover the nose and mouth, and finger cots (good for finger-only touch-points such as copier, microwave).

7.1.4 Personal Hygiene

Productions' protocols should include rules for hand washing.

- Require frequent hand washing by all on-set personnel. Require crew to wash hands before entering the sound stage.
- If soap and water are not available, use alcohol-based hand sanitizer or sanitizing wipes.
- Provide hand sanitizing stations and/or hand-washing stations throughout the set area.
- Train workers to cover their nose and mouth when they cough or sneeze. Do not cover with hands.
- Have additional personnel dedicated to managing and assisting with sanitizing.

7.1.5 Catering

Catering services should have safety protocols at least as strong as those of the stage facility. Require catering to provide their protocol in advance for review by stage management. Ensure that production abides by minimum CDC physical distancing guidelines during all meal breaks.

7.1.6 Craft Service

Communicate clearly with production as to their plans for craft service. Ensure that production's provision of craft service meets minimum CDC physical distancing and other safety guidelines at all times.

- Encourage / require prepackaged foods only.
- Encourage / require enough staffing to be continually sanitizing areas, handing crew bottled beverages vs. allowing self-selection at a cooler, etc.

7.2 Recommendations for Owners/Operators of Sound Stages

7.2.1 Access

Limit access to stages to persons essential to the production process.

- Establish procedures for deliveries and pickups that do not require the delivery person entering a stage.
- Implement policy of using telephone, text, or email instead of face-to-face communication for facility staff who may be used to making regular visits to ensure client satisfaction.
- Establish procedures for facility staff to maintain social distancing when delivering additional equipment to stages during the shoot.

- Consider establishing a hand-off by loading gear onto a cart and leaving outside the stage in a predetermined location for production crew to retrieve.
- Any person entering the stage facility should, at minimum, wear a cloth face covering.

When more than one production is present at the facility, eliminate shared use of common spaces as much as is possible. Coordinate between production teams in advance.

Coordinate with production to reduce the number of agency and client representatives present.

- Consider providing additional rooms with video/audio feed to reduce the number of people on set at any time.
- Consider streaming video solutions to provide ability for distant team members to interact without travel to set.

7.2.2 Handling of Equipment

Implement protocol to prevent spread of virus via equipment, props, costumes, office materials, etc. being brought into the facility or stage. For example, consider the following:

- Create secure holding areas for storage of “quarantined” equipment and supplies before, and, if needed, after, the shoot.
- Make available supplies for sanitizing equipment as it arrives on stage.
- Ensure that people adding and returning equipment during the shoot maintain physical distancing, such as by designating a location for equipment to be staged for addition or return.
- Communications should be via phone, text, or email, and not face-to-face.

7.2.3 Protection of Employees

OSHA requires employers to monitor their employees for COVID-19 symptoms.

Implement health checks safely and respectfully and with measures in place to ensure confidentiality in accordance with any applicable privacy laws or regulations. Consider establishing routine, daily health checks for employees and customers on arrival. Consider thermal scanning (see [CDC screening guidelines](#)²) or other technologies or establish a reliable system for self-reporting before work in order to identify employees or customers that may be ill. Watch for other symptoms such as cough and shortness of breath.

Additionally, consider obtaining a written or verbal declaration from your employees stating:

- That they are not suffering from any coronavirus symptoms and have not had any symptoms within the previous 7 days.
- That they have not (as far as they are aware) been in contact with anyone with coronavirus symptoms within the previous 14 days.
- That they will declare immediately any onset of symptoms or contact with anyone who has symptoms of coronavirus.

Employees that may have an [underlying health condition](#) that might make them particularly vulnerable to coronavirus can make this known to the employer and request reasonable accommodation. The ADA does

² See FAQ question: “Should we be screening employees for COVID-19 symptoms (such as temperature checks)? What is the best way to do that?”

not allow the employer to exclude the employee, or take any other adverse action, solely because the employee has a disability.

Any person feeling sick or showing any symptoms of coronavirus should be sent home (by private transport) and told to seek medical advice.

Consider reviewing existing sick leave policies, and consider implementing relaxed sick leave policies so that economic forces do not sway employees to report to work if sick or potentially sick.

7.2.4 Shared Spaces

Establish protocols to manage areas that are shared between facility staff and production staff such as dining areas, waiting rooms, conference rooms, restrooms, entrances and exits.

7.2.5 Cleaning

Normal routine cleaning with soap and water will decrease how much of the virus is on surfaces and objects, which reduces the risk of exposure. Disinfection using EPA-approved disinfectants against coronavirus can also help reduce the risk. Frequent disinfection of surfaces and objects touched by multiple people is important.

- Ensure that facility cleanliness meets CDC and OSHA guidelines (see Section 9 of this document).
- Differentiate between, and create checklists of, cleaning to be done a) in between shoots; b) on a daily basis; and c) throughout the shoot day.
 - Determine whether this cleaning will be done by an outside janitorial firm or by facility staff.
 - Consider who will confirm that cleaning has been done and checklists are complete.
 - Consider requiring and reviewing safety protocols for any outside janitorial firm.

7.3 Additional Considerations

Consider whether the facility will offer for sale any PPE including masks, face coverings, gloves, etc.

Review stage rental and/or licensing agreements. Consider that additional language may be required in light of pandemic, specifically disclaimers of liability.

Consider the need for additional time between stage bookings to allow for additional cleaning.

Consider posting [CDC approved posters and signage](#) throughout the facility to encourage compliance with safe practices such as handwashing, social distancing, and face covering use.

Consider additional portable handwashing stations to encourage frequent hand washing especially near entrances.

Consider removing doorknobs and having doors that swing/push open to lessen what surfaces have to be touched (this may not be necessary and/or effective).

8. Production Vehicles

The intent of this section is to provide information and guidelines for safe cleaning and sanitization of transportation vehicles used in the production marketplace while observing all OSHA, CDC, Union and other national, state or county relevant governing bodies' regulations.

Vehicles of many sizes and configurations are used to transport talent, camera, lighting, grip and various other related production equipment from rental company facilities to production locations or stages and then for returning equipment to the rental facility or otherwise designated destination.

Keeping the equipment trucks, motor homes, trailers, cargo vans and alternate vehicles clean and sanitized to the standards recommended by health and safety advisors and CDC recommendations is critical for the protection of talent, crews, production management and rental company personnel. It is the respective responsibility of the rental staff, vehicle drivers, and the production crew handling the equipment and other transported materials to follow all agreed safety procedures.

8.1 Limiting Access to Vehicles

- It is highly recommended passengers should never be allowed in the cab or driver's compartment, only the vehicle driver.
- Personnel loading, driving, and cleaning each vehicle should be kept to the absolute minimum adhering to physical distancing requirements while following all industry safety practices.
- It is recommended to have only one designated driver per truck, whenever possible.
- It is recommended when delivering or picking up equipment at the production's location that face masks be required to be worn by the production crew to protect the rental company's delivery drivers/ Teamsters. It is recommended face masks and protective gloves be required of any production crew assisting driver loading equipment.
- After the cargo is fully sanitized, minimal rental-company personnel should load the vehicle at the loading dock. Recommended PPE for handling and loading equipment includes face masks and protective gloves. Rental company personnel should maintain physical distancing as much as possible while loading equipment inside the truck box. At the delivery point, the driver will open the truck and bring equipment to the lift gate. Receiving production crew, suited with appropriate PPE and face masks, may then unload equipment while maintaining physical distancing.
- On return, after the cargo is sanitized at the location or stage it is recommended only a minimal production crew, also appropriately suited with PPE, bring equipment to the truck keeping appropriate distances. The driver will load the truck for return and if needed a production crew member may be asked to assist in which case appropriate PPE and social distancing protocols should be observed. On return to the rental facility the rental company personnel should unload the vehicle.
- It is recommended equipment be appropriately sanitized or quarantined by the rental company before being checked in and stored to avoid cross contamination with other equipment in the facility.
- It is recommended prior to loading and after unloading, the trailer or truck box should be sanitized. Additionally prior to unloading, the holding storage area should be completely sanitized

A checklist of cleaning procedures may be signed by the driver confirming sanitization of all touch points and any other required cleaning. If possible, it is preferable the checklist be signed using a touchless procedure. This can be part of the required DOT vehicle pre-trip inspection to be performed by the driver prior to leaving the rental facility's loading dock and again post-trip upon returning the vehicle.

It is highly recommended all paperwork such as the DOT truck inspection log-book, be digitized to eliminate additional items that potentially may contain viral microbes.

8.2 Sanitizing the Driver's Compartment

It is suggested only the driver may sanitize the driver's compartment; no other personnel should enter the cab.

While cleaning the cab, it is recommended PPE be worn by the driver, minimally including a face covering and gloves and possibly protective eye wear if spraying or splashing may occur.

Many surfaces may require different sanitizing products to avoid damage; for example, vinyl, leather, steel, plastic, painted and aluminum surfaces. For suggestions of possible sanitization products please see Section 9. Be aware all products may have different dwell times and before wiping please refer to manufacturer's instructions to insure effectiveness.

After touching elements such as doorknobs, tailgate latches, mirrors or other high-touch contact points it is recommended to wash your hands as stated in Section 9 of this document. Although preferred, if handwashing facilities are not available, an alcohol-based sanitizer with a minimum of 60% alcohol may be used.

Surfaces to be cleaned include the steering wheel, gear shift or selector, all driver switches and controls, door handles (interior and exterior), glass, seatbelts and the sleeper. Gearshifts or selectors need to be wiped down frequently as per manufacturer instructions.

After sanitization it is recommended to leave windows partially open for ventilation prior to driving to ensure all sanitization fumes have dissipated and to insure fresh air flow for the cab interior.

It is recommended to avoid using the recirculated air option for ventilation during transport; use the vents to bring in fresh outside air and/or lower the vehicle windows.

Prior to cleaning the various surfaces in the truck cab with sanitization products, it is recommended that the manufacturer's SDS product sheet be reviewed.

There are wipes that do not use bleach or hydrogen peroxide that would disinfect without surface damage. See Section 9.

Cleaning solutions dwell times vary by product and should be based upon OEM recommendations. It is important not to wipe sanitizing products until full dwell time has been met.

Soft surfaces such as cloth, vinyl, leather, and nonwoven materials should be cleaned with the appropriate solutions following manufacturer's procedures.

Gloves and any other disposable PPE used for cleaning and disinfecting the vehicle should be removed and disposed of after cleaning; wash hands immediately after removal of gloves and PPE with soap and water for at least 20 seconds, or use an alcohol-based hand sanitizer with at least 70% alcohol if soap and water are not available. If a disposable gown was not worn, work uniforms/clothes worn during cleaning

and disinfecting should be laundered afterwards using the warmest appropriate water setting and dry items completely. Wash hands after handling laundry.

8.3 Sanitizing the Truck Box and Trailer

Trailer and cargo compartments including jockey boxes, handles, latches, and all other touch points should be sanitized before and after loading for delivery and upon returning to rental facility as part of the drivers responsibility of pre and post trip inspections.

8.4 Driver and Technicians Hygiene

It is recommended while on site or location performing vehicle maintenance, rental company technicians will be required to wear proper PPE and strictly follow their employer's protocol.

If multiple drivers will use the same truck it is suggested drivers wear face masks in the cab.

Each truck should have a driver's PPE Kit, with additional masks or face coverings, gloves and other replenishable items that may be used if original PPE equipment needs replaced.

8.5 Vehicle Log

It is recommended that each truck and driver will have a sanitization log schedule in digital format with dates, times, products and sanitizing methods used while the truck was in their possession.

Rental companies should retain record of drivers, crew, and visitors who were in the shop for future reference if a person thereafter contracts the COVID-19 disease.

9. CDC and OSHA Provisions for Reducing the Spread of Coronavirus

This section contains recommendations of the Center for Disease Control (CDC) and Occupational Safety and Health Administration (OSHA) that may apply generally to rental operations with regard to preventing the spread of the coronavirus. See Sections 5-8 of this document for precautions specific to rental operations, sound stages, and trucks.

9.1 OSHA Exposure Risk Pyramid

OSHA spells out hazard control protocols for four levels of exposure risk.

Very High Exposure Risk – Healthcare and morgue workers

High Exposure Risk - Jobs with a high potential for exposure to known or suspected sources of COVID-19. Healthcare delivery, healthcare support, medical transport, and mortuary workers

Medium Exposure Risk - Jobs that require frequent/close contact with people who may be infected, but who are not known or suspected patients. Those who may have contact with the general public (e.g., schools, high-population-density work environments, some high-volume retail settings), including individuals returning from locations with widespread coronavirus transmission.

Lower Exposure Risk - Jobs that do not require contact with people known to be, or suspected of being, infected. Workers in this category have minimal occupational contact with the public and other coworkers

The exposure risk for workers in our industry is medium or lower risk.

9.1.1 OSHA Recommendations for Medium Exposure Risk

Medium exposure risk jobs include those that require frequent and/or close contact with (i.e., within six feet of) people who may be infected with SARS-CoV-2, but who are not known or suspected COVID-19 patients.

Where there is ongoing community transmission, workers should be considered at medium risk exposure when their jobs involve:

- Contact with the general public
- High-population-density work environments like high-volume retail settings
- Frequent contact with travelers returning from international locations with widespread COVID-19 transmission.

Engineering Controls. Install physical barriers, such as clear plastic sneeze guards, where feasible.

Administrative Controls. Consider offering face masks to ill employees and customers to contain respiratory secretions until they are able leave the workplace (i.e., for medical evaluation/care or to return home).

- Where appropriate, limit customers' and the public's access to the worksite, or restrict access to only certain workplace areas.
- Consider strategies to minimize face-to-face contact (e.g., drive-through windows, phone-based communication, telework).

- Communicate the availability of medical screening or other worker health resources (e.g., on-site nurse; telemedicine services).

Personal Protective Equipment (PPE). When selecting PPE, consider factors such as function, fit, decontamination ability, disposal, and cost. Sometimes, when PPE will have to be used repeatedly for a long period of time, a more expensive and durable type of PPE may be less expensive overall than disposable PPE. Each employer should select the combination of PPE that protects workers specific to their workplace.

Workers with medium exposure risk may need to wear some combination of gloves, a gown, a face mask, and/or a face shield or goggles. PPE ensembles for workers in the medium exposure risk category will vary by work task, the results of the employer's hazard assessment, and the types of exposures workers have on the job.

9.1.2 OSHA Recommendations for Lower Exposure Risk

Lower exposure risk (caution) jobs are those that do not require contact with people known to be, or suspected of being, infected with SARS-CoV-2 nor frequent close contact with (i.e., within six feet of) the general public. Workers in this category have minimal occupational contact with the public and other coworkers.

Administrative Controls. Monitor public health communications about COVID-19 recommendations and ensure that workers have access to that information. Frequently check the CDC COVID-19 website: www.cdc.gov/coronavirus/2019-ncov.

Collaborate with workers to designate effective means of communicating important COVID-19 information.

Personal Protective Equipment. Additional PPE is not recommended for workers in the lower exposure risk group. Workers should continue to use the PPE, if any, that they would ordinarily use for other job tasks.

9.2 Health Declarations

Several industry production guidelines include obtaining a written declaration from all crew and other contacts stating:

- That they are not suffering from any coronavirus symptoms and have not had any symptoms within the previous 7 days.
- They have not (as far as they are aware) been in contact with anyone with coronavirus symptoms within the previous 14 days.
- That they undertake to declare immediately any onset of symptoms or contact with anyone who has symptoms of coronavirus.

Employees that may have an [underlying health condition](#) that might make them particularly vulnerable to coronavirus can make this known to the employer and request reasonable accommodation. The ADA does not allow the employer to exclude the employee, or take any other adverse action, solely because the employee has a disability.

Anyone developing symptoms while at work should be sent home (by private transport) and told to seek medical advice.

9.3 Identifying Symptoms of COVID-19

OSHA recommends that employers develop policies and procedures for prompt identification and isolation of sick people. Employers should inform and encourage employees to self-monitor for signs and symptoms of COVID-19 if they suspect possible exposure. Ask the employee to confirm that their temperature is less than 100.4 F (38.0°C), and confirm that they are not experiencing coughing or shortness of breath.

9.3.1 Screening People

Screening employees is an optional strategy that employers may use. There are several methods that employers can use to protect the employee conducting the temperature screening. The most protective methods incorporate physical distancing (maintaining a distance of six feet from others), or physical barriers to eliminate or minimize the screener's exposures due to close contact with a person who has symptoms during screening.

9.4 Physical Distancing

In accordance with CDC recommendations, when COVID-19 is spreading in your area, everyone should limit close contact with individuals outside your household in indoor and outdoor spaces. Since people can spread the virus before they know they are sick, it is important to stay away from others when possible, even if you have no symptoms. Physical distancing is especially important for [people who are at higher risk of getting very sick](#).

Stay at least six feet (about two arms' length) from other people. Do not gather in groups. Stay out of crowded places and avoid mass gatherings.

In addition to [everyday steps to prevent COVID-19](#), keeping space between you and others is one of the best tools we have to avoid being exposed to this virus and slowing its spread locally and across the country and world.

9.5 Hygiene

9.5.1 Hand Hygiene

CDC recommends employees protect themselves from respiratory illness with everyday preventive actions, including good [hand hygiene](#). Employees should wash hands often with soap and water for at least 20 seconds, or use a hand sanitizer that contains at least 60% alcohol if soap and water are not readily available, especially during key times when persons are likely to be infected by or spread germs:

- After blowing one's nose, coughing, or sneezing
- After touching objects that have been handled by customers
- Before, during, and after preparing food
- After using the toilet
- After touching garbage
- Before and after the work shift

- Before and after work breaks

9.5.2 Hand Sanitizers

[The Centers for Disease Control and Prevention](#) advises that washing hands with plain soap and running water is one of the most important steps consumers can take to avoid getting sick and to prevent spreading infections to others. If soap and water are not available, the CDC recommends using an alcohol-based hand sanitizer that contains at least 60 percent alcohol.

9.5.3 Additional Measures

- Discourage workers from using other workers' phones, desks, offices, or other work tools and equipment, when possible.
- Provide tissues and no-touch disposal receptacles.
- Provide soap and water in the workplace. If soap and water are not readily available, use alcohol-based hand sanitizer that contains at least 60% alcohol. If hands are visibly dirty, soap and water should be chosen over hand sanitizer.
- Place hand sanitizer in multiple locations to encourage good [hand hygiene](#) practices.
- Place [posters](#) that encourage staying home when sick, the importance of hand hygiene, and coughing and sneezing etiquette at the entrance to your workplace and in other workplace areas where employees are likely to see them.
- Discourage handshaking

9.6 Personal Protective Equipment (PPE)

While engineering and administrative controls are considered more effective in minimizing exposure, PPE may also be needed to prevent certain exposures. While correctly using PPE can help prevent some exposures, it should not take the place of other prevention strategies.

Examples of PPE include gloves, goggles, face shields, face masks, and respiratory protection, when appropriate. During an outbreak of an infectious disease, such as COVID-19, recommendations for PPE specific to occupations or job tasks may change depending on geographic location, updated risk assessments for workers, and information on PPE effectiveness in preventing the spread of COVID-19. Employers should check the OSHA and CDC websites regularly for updates about recommended PPE.

CDC recommends [wearing cloth face coverings](#) in public settings where other social distancing measures are difficult to maintain, especially in areas of significant community transmission. Cloth face coverings may prevent people who don't know they have the virus from transmitting it to others. These face coverings are not surgical masks or respirators and are not appropriate substitutes for them in workplaces where masks or respirators are recommended or required.

When cleaning and disinfecting, employees should always wear gloves and gowns appropriate for the chemicals being used. Additional personal protective equipment (PPE) may be needed based on setting and product.

CDC does not recommend the use of PPE (N95 respirators, gloves) in workplaces where it is not routinely recommended.

9.7 Cleaning of Equipment

Current evidence, though still preliminary, suggests that SARS-CoV-2, the virus that causes COVID-19, may remain viable for hours to days on surfaces made from a variety of materials. It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes, but this is not thought to be the main way the virus spreads.

If the machinery or equipment in question are not accessible to employees or have not been in contact with someone infected with COVID-19, they will not present an exposure hazard.

If machinery or equipment are thought to be contaminated and can be cleaned, follow the [CDC cleaning and disinfection recommendations](#). First clean dirty surfaces with soap and water. Second, disinfect surfaces using [products that meet EPA's criteria for use against SARS-Cov-2external](#) and are appropriate for the surface.

If machinery or equipment are thought to be contaminated and **cannot** be cleaned, they can be isolated. Isolate papers or any soft (porous) surfaces for a minimum of 24 hours before handling. After 24 hours, remove soft materials from the area and clean the hard (non-porous) surfaces per the cleaning and disinfection recommendations. Isolate hard (non-porous) surfaces that cannot be [cleaned and disinfected](#) for a minimum of 7 days before handling.

9.8 Sanitizing Facilities

The products on this list meet EPA's criteria for use against SARS-CoV-2, the virus that causes COVID-19.

<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

<https://www.epa.gov/coronavirus/disinfectant-use-and-coronavirus-covid-19>

9.8.1 Disinfecting Surfaces

Clean the area or item with soap and water or another detergent if it is dirty. Then, use disinfectant.

Recommend use of [EPA-registered household disinfectant](#).

Follow the instructions on the label to ensure safe and effective use of the product.

Many products recommend:

- Keeping surface wet for a period of time (see product label)
- Precautions such as wearing gloves and making sure you have good ventilation during use of the product.
- Diluted household bleach solutions may also be used if appropriate for the surface.
- Check the label to see if your bleach is intended for disinfection, and ensure the product is not past its expiration date. Some bleaches, such as those designed for safe use on colored clothing or for whitening may not be suitable for disinfection.

Unexpired household bleach will be effective against coronaviruses when properly diluted.

- Follow manufacturer's instructions for application and proper ventilation.
- Never mix household bleach with ammonia or any other cleanser.

- Leave solution on the surface for at least one minute.
- To make a bleach solution, mix: 5 tablespoons (1/3rd cup) bleach per gallon of water OR 4 teaspoons bleach per quart of water

Alcohol solutions with at least 70% alcohol may also be used.

9.8.2 Disinfecting Soft Surfaces

For soft surfaces such as carpeted floor, rugs, and drapes

- Clean the surface using soap and water or with cleaners appropriate for use on these surfaces.
- Launder items (if possible) according to the manufacturer's instructions. Use the warmest appropriate water setting and dry items completely.

OR

- Disinfect with an EPA-registered household disinfectant. [These disinfectants](#) meet EPA's criteria for use against the virus that causes COVID-19.

9.8.3 Electronics

High-touch electronics:

- Consider putting a wipeable cover on electronics.
- Follow manufacturer's instruction for cleaning and disinfecting.
- If no guidance, use alcohol-based wipes or sprays containing at least 70% alcohol. Dry surface thoroughly.

9.9 Sick Workers

Employees who have symptoms when they arrive at work or become sick during the day should immediately be separated from other employees, customers, and visitors and sent home. Employees who develop symptoms outside of work should notify their supervisor and stay home.

Sick employees should follow [CDC-recommended steps](#). Employees should not return to work until they have met the criteria to [discontinue home isolation](#) and have consulted with a healthcare provider and state or local health department.

In most cases, you do not need to shut down your facility. But do close off any areas used for prolonged periods of time by the sick person:

- Wait 24 hours before cleaning and disinfecting to minimize potential for other employees being exposed to respiratory droplets. If waiting 24 hours is not feasible, wait as long as possible.
- During this waiting period, open outside doors and windows to increase air circulation in these areas.

Follow the [CDC cleaning and disinfection recommendations](#).

9.10 Contact with an Infected Person

9.10.1 Recent Close Contact

People who feel healthy but [recently had close contact](#) with a person with COVID-19, or recently [traveled](#) from somewhere outside the U.S. or on a cruise ship or river boat should self-quarantine:

- Check your temperature twice a day and watch for symptoms.
- Stay home for 14 days and self-monitor.
- If possible, stay away from people who are [high-risk](#) for getting very sick from COVID-19.

9.10.2 People with Symptoms or Diagnosed with COVID-19

If a person has been diagnosed with COVID-19, or is waiting for test results or has symptoms such as cough, fever, or shortness of breath, they should self-isolate.

- Stay in a specific “sick room” or area and away from other people or animals, including pets. If possible, use a separate bathroom.
- Read important information about [caring for yourself](#) or [someone else who is sick](#).

9.11 Signage and Communications

Consider posting CDC approved posters and signage throughout the facility to encourage compliance with safe practices such as handwashing, physical distancing, and mask use. For links to signs and posters see Appendix J.

9.12 Training

Worker training should include:

- Educate workers on COVID-19 risk factors and protective behaviors.
- Educate workers performing to recognize the symptoms of COVID-19.
- Provide instructions on what to do if they develop [symptoms](#) within 14 days after their last possible exposure to the virus.
- Develop policies for worker protection and provide training to all cleaning staff on site prior to providing cleaning tasks.
- Training should include when to use PPE, what PPE is necessary, how to properly don (put on), use, and doff (take off) PPE, and how to properly dispose of PPE.
- Ensure workers are trained on the hazards of the cleaning chemicals used in the workplace in accordance with OSHA’s Hazard Communication standard ([29 CFR 1910.1200](#)).
- Comply with OSHA’s standards on Bloodborne Pathogens ([29 CFR 1910.1030](#)), including proper disposal of regulated waste, and PPE ([29 CFR 1910.132](#)).

Training material should be easy to understand and available in the appropriate language and literacy level for all workers.

Appendix A Hygiene Precautions on ARRI Products: Lighting Product Range

LPI 138-2020:

Introduction

The coronavirus COVID-19 is spread all over the world and brings uncertainty into the economy, into our daily routine, but also into our working life. Many of our business partners are contemplating how to protect their customers and employees against infection.

ARRI receives many questions regarding the hygiene precautions that can be taken with and on our products. To ensure that ARRI's communication is consistent, we have compiled a few facts.

Details

Basically, ARRI received two different kinds of questions. The answers are explained below:

Can we use ARRI lampheads to disinfect our Sets / Studios / working environments?

The short answer is - No. There are specialized manufacturers of medical equipment that are specialized in UV-emitting lamps for disinfection purposes.

ARRI on the other hand takes preventative measures to keep the emitted UV radiation as low as possible in order to protect the health of illuminated persons (e.g. UV protection glasses against skin burns). All these safety precautions are prescribed by law and must be strictly observed. It is not permitted to operate the lampheads without the necessary protective devices and precautions. All information on the correct handling of our lampheads can be found in the respective product user manuals.

Which hygiene precautions can be taken on ARRI products?

All information about the maintenance of your product can be found in the respective User Manual or Safety and Installation Manual under Maintenance Information/Care Instruction.

In general:

- Do not clean the surface of the product with solvents or strong detergents, alkaline solutions and acids.
- Clean the product with a soft cloth wetted with a mild detergent or customary glass cleaning agent. Do not rub the surface: lift stuck particles off with a soft repeated press.
- Clean soiled electric contacts with cotton swabs and lamps with a cloth wetted with isopropyl alcohol.
- Commercially available disinfectants/sanitizers are also suitable for disinfection purposes. Nevertheless please make sure that the surfaces are only moistened (e.g. with a disinfection cloth).

Product Manager Lighting , Anna Binder, abinder@arri.de

Approved by Head of Product Management , Florian Bloch.

April 27th, 2020

SUPPLEMENT TO LPI 138-2020 : Hygiene Precautions on ARRI Products, Lighting Product Range

Introduction

After releasing LPI 138 about hygiene precautions on ARRI products, Service and Product Management received many questions regarding the suitability of certain disinfectants and methods that can be used with ARRI products.

Details

Recommendations for disinfection of ARRI lighting equipment

1. **Manual disinfection by using alcohol-based disinfectant and wiping the surface**

Products with a high alcohol content are not suitable for sensitive plastics and could lead to stress cracking. After reviewing several test reports, products based on a balanced low-alcohol composition like Bacillol 30 Foam are suitable to disinfect plastic and aluminum surfaces.

2. **Bulk disinfection by using artificial fog and special fog fluid**

For bulk disinfection (like disinfection of equipment loaded in a truck) there are fog machines for disinfection, pest control, odor control and plant protection available on the market. The advantage of using fog machines is that they are expelling a fine, almost invisible mist into the atmosphere which eventually settles on all surfaces including those impossible to reach by conventional methods.

Please note that when using fog machines:

The units must be switched off

The fog time must be as short as possible

Heavy fog deposits on the equipment must be removed before using the equipment. Artificial fog forms a slightly greasy deposit that attracts dirt and which burn into the surface when heated.

Head of Global Application & Services, Mathias Gentsch, mgentsch@arri.de

Product Manager Lighting Anna Binder, abinder@arri.de

Stephanskirchen, May 11th, 2020

Appendix B Recommended Best Practices for Cleaning and Disinfecting Chimera Lightbanks & Textiles

WARNING. DO NOT USE HARSH CLEANERS LIKE BLEACH OR OTHER CHLORINATED PRODUCTS ON ANY TEXTILE FROM CHIMERA!

WARNING. DO NOT MACHINE WASH OR DRY ANY TEXTILE FROM CHIMERA!

Fabric Diffusions

All diffusions should only be cleaned and disinfected by hand. DO NOT MACHINE WASH OR DRY! Use mild soap (something like Dawn) and hand wash thoroughly in warm water. Air dry.

Lightbanks and Items with Laminated Textiles i.e., black + reflection

Thoroughly wet a clean cloth using a solution of warm water with mild soap. Wipe each surface completely with the soap solution and then repeat with a clean, wet cloth to rinse. Air dry.

Alcohol-based aerosol spray with at least 70% alcohol can be effective for both sides of the textiles. Spray evenly to coat all surfaces, use a clean cloth to reach hard to spray areas. Air dry.

Lighttools Fabric Grids

Thoroughly wet a clean cloth using a solution of warm water with mild soap. Wipe each surface completely with the soap solution and then repeat with a clean, wet cloth to rinse. Air dry.

Alcohol-based aerosol spray with at least 70% alcohol can be effective for both sides of the textiles. Spray evenly to coat all surfaces, use a clean cloth to reach hard to spray areas. Air dry.

Rings & Frames

Wipe all surfaces clean with at least 70% alcohol solution and allow to air dry.

Appendix C Tips from Cooke Optics

The following tips for disinfecting lenses are from Michael Nadas, a lens technician at Cooke Optics.

Lenses

Use a 70% Isopropyl Alcohol solution. It can be mixed from a 99% Isopropyl Alcohol mixed with approximately 30% water in a spray bottle. The point of a 70% alcohol solution is that by adding the 30% water, it is allowed to linger longer without completely evaporating too quickly to kill the virus, which pure 99% alcohol would.

Spray alcohol solution onto a cloth such as a blue shop towel or better yet, a large microfiber type wipe I, such as a 100% knitted polyester. Wipe the entire lens body down. It is very important not to have drips. Do not soak the lens. You do not want the alcohol solution to get under the rings and into the glass.

It is not necessary to wipe down the glass as no one should normally be touching the front or rear element and the risk there is minimal.

Road Cases

Spray down the road cases and let them sit until virtually dry, which takes a few minutes. It is recommended to wear Nitrile powder-free exam gloves while doing this, mainly to avoid drying out your skin or absorbing the chemical.

Appendix D Recommended Cleaning Procedure for Fujinon Broadcast and Cinema Lenses.

When cleaning a Fujinon broadcast or cinema lens there are two separate areas of concern:

- All coated glass surfaces
- All other surfaces including lens barrel/housing, servo handgrip, accessories.

When cleaning the Fujinon glass surfaces the following steps are recommended:

1. It is recommended rubber gloves are worn when cleaning the lens
2. Blow/brush the surfaces clean of any debris.
3. Dab a new/clean lens towel/tissue in 99.9% alcohol and wipe the surface clean in a circular motion from center to edge of the optical element.
4. Discard the cleaning tissue after every wipe.
5. Ensure 99.9% isopropyl alcohol¹ is used to ensure fast evaporation and minimize the chance of streaking. (alternate lens cleaner option in link below)
6. Kimwipe style dust free tissues are recommended.
7. Never spray alcohol or any other liquid directly onto the lens elements
8. Wash hands thoroughly when complete

If the glass surfaces of the lens need to be cleaned in the field, Fujifilm recommends the use of:
<https://nanomagic.com/product/ultra-clarity-1oz-spray-packs/>

When cleaning the other surfaces of a Fujinon lens barrel, handgrip or accessory product:

- 1) It is recommended rubber gloves are worn when cleaning the lens.
- 2) Blow/brush the surfaces clean of any debris.
- 3) Dilute a clean microfiber towel/rag in a 70% alcohol solution.
- 4) Wipe all surfaces until they are thoroughly cleaned.
- 5) Allow all surfaces to dry
- 6) Never spray any liquid solution directly onto the lens for risk of droplets penetrating the barrel and contaminating internal surfaces.
- 7) Denatured alcohol is NOT recommended for lens cleaning
- 8) Used microfiber towels should be cleaned regularly
- 9) Wash hands thoroughly when complete

Thank-you for your support of Fujinon lens products. If you have any further questions or concerns please contact your nearest Fujifilm, Optical Devices Division sales or service representative at:
www.fujinon.com.

¹ Due to the high flammability of 99.9% alcohol ensure to handle with care

Appendix E LiteGear Products Cleaning and Disinfection Guidelines

Reducing the risk of exposure to COVID-19 by cleaning and disinfecting your LiteGear equipment after each use is an important part in bringing the industry back to work and keeping it at work. Every one of us has a role to play in slowing the spread of the virus and preventative hygiene is one simple step. Now more than ever is a great time to take a closer look at how to properly clean and disinfect your LiteGear equipment.

SECTION

1. General Guidelines
2. LiteMat and LiteTile
3. LiteDimmer Ballasts
4. PolySkirts
5. Desktop Power Supplies
6. Louvers
7. Diffusion
8. KitBag
9. Accessories (Adapters, Head Extension Mounting Plates)

WARNINGS

- Do not attempt to disassemble any piece of equipment for the purposes of disinfecting internal components. Doing so may cause permanent damage to your equipment and void any warranties.
- Do not attempt to disinfect any piece of equipment that is connected to power. Doing so will cause permanent damage to your equipment and possibly result in injury or death.
- Be aware of the potential safety hazards involved in the use of UVC disinfecting devices and read and understand all manufacturer instructions for the safe use of these devices.

1. General Cleaning And Disinfecting Guidelines

- Do not use harsh chemicals, solvents or products containing ammonia or bleach to clean any surfaces on your equipment.
- Do not use a high percentage by volume alcohol to clean plastic surfaces on your light fixtures. A 70% by volume alcohol is effective in neutralizing bacteria and viruses.
- Do not use hydrogen peroxide on any surfaces of your equipment. Hydrogen peroxide is corrosive and can damage some surfaces, even at low concentrations, as available over the counter (3%).
- Do not spray cleaning agents directly onto the surfaces being cleaned. Always spray onto a clean soft, cloth first, then wipe the equipment.

- Use of commercially available wipes (not chlorine based) is suitable as recommended depending on the equipment being cleaned.
- A mild detergent & water solution can be used to wipe off dirty surfaces, but do not soak or allow the mixture to pool in the fixture being cleaned.
- Electrostatic disinfecting spraying machines can be safely used on most surfaces including fabrics, Velcro and most plastics. Do not apply directly to ballasts at close range and do not allow solution to saturate on ballast or fixture surfaces.
- UVC disinfecting lamps can be a great solution to effectively remove viruses and bacteria. Although most plastics used on your equipment are treated to resist minor UV exposure, continued or prolonged exposure to high levels of UVC can degrade and damage the plastic surfaces on your equipment.

2. General Cleaning Of Litemat And Litetile

- Use a plastic cleaner to remove dust and debris from all plastic surfaces on the fixture. (Examples: Brillianize or Novus brands)
- Use a mild detergent & water solution on a soft, clean cloth to wipe off metal, rubber cable, fabric, connectors and Velcro surfaces. Do not allow the mixture to saturate any surface.
- A soft cloth lightly moistened with plain water will also do the job.
- Allow all surfaces to dry thoroughly before use or storage.

Disinfecting Of Litemat And Litetile

- Lightly apply 70% by volume Isopropyl alcohol on a soft, clean cloth to wipe off all surfaces of the fixture. Do not saturate surfaces and allow to thoroughly dry before use or storage.
- Disinfecting sprays can be used as well, but never spray directly onto the equipment being cleaned, instead spray onto a soft, clean cloth then wipe the equipment.
- Disinfecting wipes can be used on all surfaces as long as they are not bleach or ammonia based.
- Use of electrostatic disinfecting machines is recommended for all surfaces on the fixtures, but the solution must be applied from a distance of 2 to 3 feet and the solution must not be allowed to saturate onto any surface. Solution must be allowed to dry thoroughly before use or storage.
- UVC lamps are not recommended for disinfecting the light fixtures since most materials on the fixtures are plastic. With prolonged exposure to high levels of UVC radiation the plastic on the housing will degrade and develop cracks and the clear plastic that protects the LEDs will become opaque and brittle over time.

3. General Cleaning Of Litedimmer Ballasts

- Use a mild detergent & water solution on a soft, clean cloth to wipe off metal, rubber cable, fabric, connectors and Velcro surfaces. Do not allow the mixture to saturate or pool on any surface.
- A soft cloth lightly moistened with plain water will also do the job.
- Allow all surfaces to dry thoroughly before use or storage.

Disinfecting Of Litedimmer Ballasts

- Lightly apply 70% by volume Isopropyl alcohol on a soft, clean cloth to wipe off all surfaces of the ballast. Do not saturate surfaces and allow to thoroughly dry before use or storage.

- Disinfecting sprays can be used as well, but never spray directly onto the equipment being cleaned, instead spray onto a soft, clean cloth then wipe the equipment.
- Disinfecting wipes can be used on all surfaces as long as they are not bleach or ammonia based.
- Use of electrostatic disinfecting machines is recommended for all surfaces on the ballast, but the solution must be applied from a distance of 2 to 3 feet and the solution must not be allowed to saturate or pool onto any surface. Solution must be allowed to dry thoroughly before use or storage.
- UVC lamps can be used for disinfecting ballasts and dimmers, but be aware that some units feature plastic end caps and the clear cover over some displays is made of plastic and therefore susceptible to degradation with continued and prolonged exposure to high levels of UVC radiation. The plastic on the end caps will degrade and develop cracks and the clear plastic that protects the display will become opaque and brittle. (Please be aware of the safety hazards to humans from exposure to UVC radiation before attempting use of this method)

4. General Cleaning Of Polyskirts

- Use a mild detergent & water solution on a soft, clean cloth to wipe off plastic and Velcro surfaces. Do not allow the mixture to saturate or pool on any surface.
- A soft cloth lightly moistened with plain water will also do the job.
- Allow all surfaces to dry thoroughly before use or storage.

Disinfecting Of Polyskirts

- Lightly apply 70% by volume Isopropyl alcohol on a soft, clean cloth to wipe off all surfaces of the PolySkirt. Do not saturate surfaces and allow to thoroughly dry before use or storage.
- Disinfecting sprays can be used as well, but never spray directly onto the equipment being cleaned, instead spray onto a soft, clean cloth then wipe the equipment.
- Disinfecting wipes can be used on all surfaces as long as they are not bleach or ammonia based.
- Use of electrostatic disinfecting machines is recommended for all surfaces on the PolySkirt. Do not saturate solution onto any surface. Solution must be allowed to dry thoroughly before use or storage.
- UVC lamps are not recommended for disinfecting the PolySkirt since it is mostly plastic. With prolonged exposure to high levels of UVC radiation the plastic on the PolySkirt and the elastic cord that holds it together will degrade. The plastic will develop cracks and the elastic will become brittle over time.

5. General Cleaning Of Desktop Power Supplies

- Use a mild detergent & water solution on a soft, clean cloth to wipe off the plastic housing. Do not allow the mixture to saturate or pool on any surface.
- A soft cloth lightly moistened with plain water will also do the job.
- Allow all surfaces to dry thoroughly before use or storage.

Disinfecting Of Desktop Power Supplies

- Lightly apply 70% by volume Isopropyl alcohol on a soft, clean cloth to wipe off all surfaces of the PolySkirt. Do not saturate surfaces and allow to thoroughly dry before use or storage.
- Disinfecting sprays can be used as well, but never spray directly onto the equipment being cleaned, instead spray onto a soft, clean cloth then wipe the equipment.

- Disinfecting wipes can be used on all surfaces as long as they are not bleach or ammonia based.
- Use of electrostatic disinfecting machines is recommended for all surfaces on the PolySkirt. Do not saturate solution onto any surface. Solution must be allowed to dry thoroughly before use or storage.
- UVC lamps are not recommended for disinfecting the PolySkirt since it is mostly polypropylene plastic. With prolonged exposure to high levels of UVC radiation the plastic on the PolySkirt and the elastic cord that holds it together will degrade. The plastic will develop cracks and the elastic will become brittle over time.

6. General Cleaning Of Parasquare And Honeycomb Louvers

- Use a mild detergent & water solution on a soft, clean cloth to wipe off the plastic housing. Do not allow the mixture to saturate or pool on any surface.
- A soft cloth lightly moistened with plain water will also do the job.
- Allow all surfaces to dry thoroughly before use or storage.

Disinfecting Of Parasquare And Honeycomb Louvers

- Lightly apply 70% by volume Isopropyl alcohol on a soft, clean cloth to wipe off all surfaces of the louvers. Do not saturate surfaces and allow to thoroughly dry before use or storage.
- Disinfecting sprays can be used as well, but never spray directly onto the equipment being cleaned, instead spray onto a soft, clean cloth then wipe the equipment.
- Disinfecting wipes can be used on all surfaces as long as they are not bleach or ammonia based.
- Use of electrostatic disinfecting machines is recommended for all surfaces on the louvers. Do not saturate solution onto any surface. Solution must be allowed to dry thoroughly before use or storage.
- UVC lamps are not recommended for disinfecting louvers since they are mostly plastic. With prolonged exposure to high levels of UVC radiation the plastic on the louvers will degrade and develop cracks and/ or discoloration and become brittle over time.

7. General Cleaning Of Fabric Diffusion

- Use a mild detergent & water solution on a soft, clean cloth to wipe off the plastic housing. Do not allow the mixture to saturate or pool on any surface.
- A soft cloth lightly moistened with plain water will also do the job.
- Allow all surfaces to dry thoroughly before use or storage.

Disinfecting Of Fabric Diffusion

- Disinfecting sprays can be used to disinfect all fabric-based accessories, but be sure to spray from a distance of 1 to 2 feet and do not allow spray saturate in one area.
- Use of electrostatic disinfecting machines is recommended for all fabric-based accessories. Do not saturate solution onto any surface. Solution must be allowed to dry thoroughly before use or storage.
- UVC lamps are not recommended for disinfecting nylon fabric-based accessories. Diffusers are made from a polyester fabric and therefore are able to better withstand degradation from UVC exposure if necessary, to use this method of disinfection.

8. General Cleaning Of Kit Bags

- Use a mild detergent & water solution on a soft, clean cloth to wipe off the plastic housing. Do not allow the mixture to saturate or pool on any surface.
- A soft cloth lightly moistened with plain water will also do the job.
- Allow all surfaces to dry thoroughly before use or storage.

Disinfecting Of Kit Bags

- Disinfecting sprays can be used to disinfect all fabric-based accessories, but be sure to spray from a distance of 1 to 2 feet and do not allow spray saturate in one area.
- Use of electrostatic disinfecting machines is recommended for all fabric-based accessories. Do not saturate solution onto any surface. Solution must be allowed to dry thoroughly before use or storage.
- UVC lamps are not recommended for disinfecting nylon fabric-based accessories. The kit bag is made of a nylon fabric which is susceptible to UV degradation over time. The fabric on the kit bag will become discolored and become brittle with continued exposure.

9. General Cleaning Of Accessories: Adapters, Head Extension, And Mounting Plates

- Use a mild detergent & water solution on a soft, clean cloth to wipe off the plastic housing. Do not allow the mixture to saturate or pool on any surface.
- A soft cloth lightly moistened with plain water will also do the job.
- Allow all surfaces to dry thoroughly before use or storage.

Disinfecting Of Adapters, Head Extension, And Mounting Plates

- Lightly apply 70% by volume Isopropyl alcohol on a soft, clean cloth to wipe off all surfaces of the accessory. Do not saturate surfaces and allow to thoroughly dry before use or storage.
- Disinfecting sprays can be used as well, but never spray directly onto the equipment being cleaned, instead spray onto a soft, clean cloth then wipe the equipment.
- Use of electrostatic disinfecting machines is recommended for all accessories. Do not saturate solution onto any surface. Solution must be allowed to dry thoroughly before use or storage.
- UVC lamps can safely be used for disinfecting aluminum metal mounting plates and aluminum adapter accessories. Head extension may also be treated with UVC to disinfect, but be aware that the PVC jacket on most cables is only resistant to moderate exposure to UVC and can potentially degrade over time.

The information contained in this document is accurate and complete to the best of our knowledge. All recommendations are made based on our collective experience. We will update information on this document as new information is gathered and learned.

Email: info@litegear.com or support@litegear.com Web: www.litegear.com

Appendix F Panasonic

Panasonic has confirmed that it is acceptable to follow [Apple Computers recommendations for cleaning products](#) provided the following additional precautions are followed.

- If you continue to rub beyond the limit, painting, printing and surface condition may be affected by abrasion.
- Avoid strong acid and alkali components as they may affect resin deterioration.
- Strong friction and water droplets may affect the lens and liquid crystal surfaces.

Using a 70% isopropyl alcohol wipe or Clorox Disinfecting Wipes, you may gently wipe the hard, non-porous surfaces of your product, such as the display, key buttons or other exterior surfaces. Don't use bleach. Avoid getting moisture in any opening, and don't submerge your product in any cleaning agents. Don't use on fabric or leather surfaces.

- Only use a soft, lint-free cloth. Avoid abrasive cloths, towels, paper towels or similar items.
- Avoid excessive wiping, which might cause damage.
- Unplug all external power sources, devices and cables.
- Keep liquids away from the product, unless otherwise noted for specific products.
- Don't get moisture into any openings.
- Don't use aerosol sprays, bleaches or abrasives.
- Don't spray cleaners directly onto the item.

Appendix G RED Guidelines for Cleaning

<https://support.red.com/hc/en-us/articles/360046899074>

All RED® products are designed for rugged durability, but precision instruments demand proper care. Follow these instructions to clean, maintain, and store your devices.

WARNING: DO NOT rinse or immerse the camera or other accessories in water. Keep dry at all times.

WARNING: DO NOT use soaps, detergents, ammonia, acetone, alkaline cleaners, abrasive cleaning compounds, or solvents. These substances may damage lens coatings and electronic circuitry.

WARNING: DO NOT use an excess of cleaning solution.

WARNING: DO NOT reuse swabs or wipes.

WARNING: DO NOT attempt to clean the sensor or optical cavity for any reason. If the sensor becomes dirty, submit a Support ticket at <https://support.red.com>.

WARNING: DO NOT attempt to modify, dismantle, or open the camera, lens, or other accessory as doing so may expose you to electric shock and serious injury. There are no user-serviceable parts inside. Alteration or repairs made to the camera, lens, or other accessory, except by a RED®-authorized service facility, voids all warranties.

WARNING: Use caution with compressed air and gas dusters, since the high pressure, oily residue, cold air, particulates, and moisture may cause damage. You may use a filtered, non-residue gas duster to clean non-critical areas, such as around the fans and other recesses on the exterior of the camera. Damage to the camera or other components of the camera system caused by using compressed air or gas dusters is not covered under warranty.

WARNING: DO NOT use compressed air and gas dusters on the sensor or on any optics.

WARNING: DO NOT use compressed air and gas dusters on or around the integrated microphones on the front of the BRAIN.

BRAIN AND EXTERIOR SURFACES

- Use a filtered, non-residue gas duster to clean non-critical areas, such as around the fans and other recesses on the exterior of the camera.
- Clean with a dry lint-free cloth. When cleaning your camera and accessories, remember that the devices are not waterproof and moisture can damage electronic circuitry.

STORAGE

RED recommends that you store the camera and accessories in the water-resistant cases available in the [RED Store](#). These cases feature laser-cut foam to keep the camera and accessories secure.

WARNING: DO NOT store the camera or accessories in any place with extreme temperatures, direct sunlight, high humidity, severe vibration, or strong magnetic fields.

CLEAN EVF SCREEN

NOTE: This section describes only how to clean the screen on the DSMC2® RED EVF, and not how to clean the entire device.

This section explains how to clean the screen on the DSMC2 RED EVF. The screen is accessed by removing the DSMC2 RED EVF Modular Optical Block.

Use an ionized rubber air bulb to clean the screen on the DSMC2 RED EVF. If there are still particles on the screen after using an air bulb, gently wipe the screen with a rolled-up, particulate-free, non-abrasive optical-grade wipe.

NOTE: Cleaning the screen without first removing solid particles increases the risk of scratching the screen. As with many screens, any type of physical contact with the screen may scratch the surface.

PROHIBITED EVF SCREEN CLEANERS

DO NOT use any of the items listed below to clean the screen on the DSMC2 RED EVF. These products have not been tested on RED products and may cause damage or streaking.

- Compressed air
- Gas dusters
- Solvents
- Rubbing alcohol
- Isopropyl alcohol
- Windex®
- Third-party cleaning kits
- Pre-packaged lens cleaner containing any additives, such as detergent, anti-static compounds, or fragrance
- RED Microfiber Bag

WARNING: Damage to any screens or other components of the camera system caused by using prohibited cleaners is not covered under warranty.

CLEAN LCD SCREEN

NOTE: This section describes only how to clean the screen on each specified device, and not how to clean the entire device.

This section explains how to clean the screens on the following devices:

- RED PRO LCD
- RED Touch LCD
- RED PRO Touch LCD
- DSMC2 SIDEKICK™

APPROVED LCD SCREEN CLEANERS

Use only the following products to clean LCD screens:

- Ionized rubber air bulb
- Delkin Devices Sensor Solution®
- Lens swabs
- Dry optical wipes
- RED Microfiber Bag

NOTE: Before cleaning the screen with swabs or wipes and a cleaning solution, ALWAYS use an ionized rubber air bulb to remove any solid particles. Cleaning the screen without removing solid particles increases the risk of scratching the screen.

PROHIBITED LCD SCREEN CLEANERS

DO NOT use any of the items listed below to clean LCD screens. These products have not been tested on RED products and may cause damage or streaking.

- Compressed air
- Gas dusters
- Solvents
- Rubbing alcohol
- Isopropyl alcohol
- Windex
- Pancro Professional Lens Cleaner (or equivalent)
- Third-party cleaning kits
- Pre-packaged lens cleaner containing any additives, such as detergent, anti-static compounds, or fragrance

WARNING: Damage to any screens or other components of the camera system caused by using prohibited cleaners is not covered under warranty.

SCREEN STORAGE

Store any RED device with a screen in a RED Microfiber bag. Storing devices in a RED Microfiber bag preserves the superior quality of the specialized AR and AS coatings on the LCDs.

Hand wash and air-dry the RED Microfiber bag regularly.

WATER DAMAGE

If your device has come in contact with water or you suspect water damage, submit a Support ticket at <https://support.red.com> immediately.

WARNING: DO NOT attempt to power any device that may have water damage.

WARNING: DO NOT place the device in a container of rice, silica gel, or desiccant packets in an attempt to dry the device.

Appendix H Sony Guidelines for Cleaning of Products

Types of Cleaning Agents and Recommended Agents

The recommended agent for cleaning products is diluted ethanol 76.9-81.4 % by volume.

- Dampen a soft cloth made of cotton, such as gauze, with appropriate amount of ethanol.
- Wipe products surface lightly once (estimated load is about 2N)

Agents that are NOT recommended for Cleaning Products

Isopropyl alcohol (Isopropanol) is not recommended for the following reasons:

- It shows almost the same effectiveness as ethanol, but its effect on the virus is inferior to ethanol.
- It shows stronger effect of degreasing than ethanol. When 70% by volume isopropanol is used on hands, it will likely roughen the skin. Therefore ethanol is recommended from the safety point of view, although isopropanol is the cheaper agent.

Alkaline Cleaning Solutions. Sodium hypochlorite is not suitable for cleaning metal parts due to its strong corrosiveness.

The following cleaning agents are NOT recommended due to the risk of product surface damage:

Benzine
Thinner
Acid cleaning solution
Cleaning solution with polishing material
Dust cloth with chemical materials

Material that Should Not Be Cleaned with Chemical Agents

The following product materials should not be cleaned with chemical agents including ethanol.

Clear plastic (PC, acrylic, etc.)	Do not use chemical cleaning agents. Could turn plastic whitish.
Lenses	Could peel off the surface coating. Could dissolve the adhesive if the agent gets into the gap around the lens or the lens barrel.
Monitor screen	Could peel off the surface coating

Appendix I Zeiss

For disinfecting, we recommend to use a UVA-Cube 400 for about 5 to 10 minutes.

<https://www.techsil.co.uk/hoenle-uva-cube-400>

Cleaning Tips

- Surfaces where lens sits are as important as the lens itself to keep clean.
- Lens cleaners and the like are not good substitutes for actual germ cleaning products. Lens wipes will not disinfect surfaces.
- If using gloves for sanitization, try to avoid any with powder.

Appendix J Signs and Posters Links

Workplace Cleaning

CDC Guidance for Cleaning and Disinfecting Public Spaces, Workplaces and Businesses - https://www.cdc.gov/coronavirus/2019-ncov/community/pdf/ReOpening_America_Cleaning_Disinfection_Decision_Tool.pdf

CDC Cleaning and Disinfecting Your Facility - <https://www.cdc.gov/coronavirus/2019-ncov/community/disinfecting-building-facility-H.pdf>

Cleaning Computers and Electronics - <https://ehs.yale.edu/sites/default/files/files/covid-19-cleaning-computers-electronics.pdf>

CDC Keeping your Workplace and Home Safe - <https://www.cdc.gov/coronavirus/2019-ncov/downloads/workplace-school-and-home-guidance.pdf>

How to Clean Your Apple Products - https://support.apple.com/en-us/HT204172?mod=article_inline

How to Sanitize Your Smartphone - <https://www.consumerreports.org/smartphones/how-to-sanitize-your-smartphone/>

Personal Protective Equipment

CDC Sequence of Putting On and Taking Off PPE - <https://www.cdc.gov/hai/pdfs/ppe/ppe-sequence.pdf>

CDC How to Safely Remove Face Covering: <https://www.cdc.gov/coronavirus/2019-ncov/downloads/cloth-face-covering.pdf>

CDC How to Safely Remove Gloves - <https://www.cdc.gov/vhf/ebola/pdf/poster-how-to-remove-gloves.pdf>

CDC Face Coverings Do's and Don'ts - <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-faq.html>

Signs and Posters

Free Printable Workplace Posters - <https://plumgroveinc.com/products/marketing/free-covid-19-coronavirus-sign-poster-templates/#hand-washing-signs>

CDC Printable Resources - <https://www.cdc.gov/coronavirus/2019-ncov/communication/print-resources.html?Sort=Date%3A%3Adesc>

OSHA Printable Resources - <https://www.osha.gov/pls/publications/publication.athruz?pType=Industry&pID=651>