

# DAKTRONICS CONTROL SYSTEM STARTUP & SHUTDOWN PROCEDURES

Daktronics recommends powering up and testing all display equipment approximately four hours before an event to address any issues. This document covers the startup and shutdown procedures for most installations. Some site-specific practices may vary from this document.

## Startup

1. Verify uninterruptible power supplies (UPS) and racks are powered on.
2. Turn on displays (power to the sign may be controlled at a breaker or a switch box located in the rack).
3. Turn on any DI-6000s/VP-6000s. It takes approximately 2 minutes for the computer to boot and an additional 30 seconds for every card in the system. Verify the status lights on the back are green before moving to the next step.
4. Turn on any DMP-7000 computers. Wait until the shell window opens and the world graphic spins on all computers.
5. Turn on any VIP-4060s/VIP-5060s/VIP-5160s and wait 2 – 3 minutes. Indicator lights will blink on the front of the VIP-5160 when ready.
6. Turn on any peripheral equipment such as Daktronics Scoring-Timing Interfaces (DSTI), Venus Control Suite®, video production systems, All Sport® controllers, stats computers, signal converters, etc.
7. Turn on any DMP-8000 computers.
8. Turn on any VIP-4400s/VIP-4500s and wait 2 – 3 minutes for them to turn on.
9. Turn on all Show Control System (SCS) computers. Once the computer is ready, open Display Studio. Verify the status light is green.
10. Verify the SyncBack application runs and the backup and primary system are mirrored.
11. Check for any working auxiliary feeds, such as All Sport® controller, cameras, DakStats®, DSTI, real-time data (RTD), etc. Messages may display at this time.
12. Ensure all A/B interfaces are on the proper input.
13. Execute any display initialization or startup scripts.
14. Verify the backup system by switching from the primary to the backup. This may involve either switching the A/B interface, or use the appropriate user interface to switch between active and inactive computers.

## Shutdown

1. Blank displays.
2. Turn off power to displays, if possible.
3. Turn off all signal converters and A/B interfaces.
4. Turn off any DI-6000s /VP-6000s by tapping the front power once and allow device to shut down. Do not hold down the button or remove power to shut down.
5. Turn off any VIPs.
6. Shutdown any DMP-7000 and DMP-8000 from the start menu on each computer.
7. Close all program windows on the Show Control System (SCS) computers and shut down.
8. Close all program windows on DSTI computers and shut down.
9. Turn off any related peripheral equipment.

## Routine Maintenance

Because each installation is unique, Daktronics offers these instructions as guidelines only. Daktronics, Inc. assumes no liability if installation steps have been omitted or other necessary procedures are not included. Do not perform maintenance or install upgrades immediately prior to an event.

### Daily

- Install antivirus/anti spyware definition updates if connected to the internet. Windows® Defender antivirus software is qualified to be compatible with Daktronics products and protects computers from both viruses and spyware. Contact Daktronics if wanting to use an antivirus other than Windows® Defender.
- Run the SyncBack program after new content is loaded onto the system.
- Store extra copies of your content in a separate location.

### Weekly

- Restart the DMP, auxiliary, and data computers weekly. Video processors don't require a weekly reboot.
- Windows® 10 machines push automatic updates on Tuesdays at 3AM. Ensure computers are turned on for these updates; if the system is shutdown, they will push the next time the system is powered up.
- Perform a full system scan with the antivirus/anti spyware utility.
- Run V7ChkRif.exe on the DMP-7000 systems to locate any corrupt files. If the systems frequently create sequences or schedules, run the check more often.
- Run CHKDSK (do not select option for recovery of bad sectors) repeatedly until the corresponding Windows® logon entry in the event viewer shows no inconsistencies.
- Run DEFRAG on the D: drive of any DMP-7000 computers to improve performance. Do not DEFRAG the C: drive of a DMP-7000 and do not DEFRAG DMP-8000 computers.

Daktronics control systems are for display operations only. The following can adversely affect the operation of these control systems: checking personal email, browsing the web, downloading files, installing unauthorized applications, instant messaging, playing games, etc. Additionally, Daktronics recommends not installing the control system on Windows® domains, as domain policies can adversely affect the performance of the control system.

The control room climate and power are to be controlled by customer. Normal operating temperature should be 65 – 75 °F (18 – 24 °C) with humidity less than 80 percent non-condensing. Storage temperature should be between 40 – 95 °F (5 – 35 °C) with humidity less than 95 percent non-condensing. The control room power should be from clean, dedicated circuits. Each rack requires two 20-amp circuits terminated with NEMA 5-20R receptacles. One 20-amp circuit is required for each workstation desk. It is the responsibility of the electrical installation contractor to ensure that all electrical work performed on-site meets or exceeds all local and national electrical codes. Daktronics is not responsible for the quality of the power delivery system to the control system.

When viewing the rack from the rear, all power should run on the left and the signal on the right. Do not allow the signal and power to run parallel with one another.

## Uninterruptible Power Supplies

Daktronics recommends that uninterruptible power supplies (UPSs) remain powered at all times. If powered off, they need to be powered up monthly to charge the batteries. Additionally, maintain them in a climate-controlled environment. Refer to the owner's manual from the manufacturer for further information. The UPS is not intended to be a means to power on/off the contents of a rack.