Automatic Shades Info Page

What is it?

- Automatic shades are part of the base building system, similar to HVAC, envelope and other mechanisms that help the building function:
  - It is controlled by the Building
  - It works in conjunction with other Building Systems
  - It is critical to managing the heating and cooling load of the Building
- It is both a **proactive** and **reactive** system:
  - Proactively identifies what is going to happen in 15 minutes, addressing sunlight levels before it impacts the occupant
  - Reacts to changing sun and cloud cover conditions including how those interact with surrounding environment (e.g., shadow and sun reflection from nearby buildings)

Why do we need it?

- The system maintains balanced working conditions by managing:
  - direct sunlight
  - exterior reflections
  - exterior shadows
- Automatic shades also help:
  - Reduce heat load
  - Reduce cooling demand
  - Maximize natural light harvest

How does it work?

- Sunlight is detected by rooftop sensors, which deliver data to an application that controls shades

- Every 10 minutes each shade position is recalculated and adjusted according to light conditions

  ➔ Shades will lift if cloud cover persists for 10 minutes or longer

  ➔ Shades will lower if sunlight is detected for 30 seconds or longer

Typical Scenarios:

On sunny days the shades will lower and rise as the position of the sun changes over the course of the day

On cloudy days the shades will stay raised to allow in as much natural light as possible

On partially cloudy days the shades will adjust based on the position of the sun and the intensity of the light. Shades lower when there is direct sunlight and rise when there is not

Reflection Schedule

The automatic shade system accounts for other buildings and structures in the vicinity that may project glare and sunlight. The intensity of reflection from nearby buildings varies and impacts shade movement. Consider:

- At times reflection may not be clearly noticeable but is detected by the system

- Reflection schedule varies daily and is reviewed semi annually (June 21 and December 21)

- Temporary manual overrides may be set in meeting rooms, so that shades can be lowered for presentations and to minimize distraction. The shades will reset automatically upon detecting a room is unoccupied.

Shades respond to a combination of shadow and sunlight reflected from nearby buildings

Shades lower to prevent direct sunlight penetration resulting from reflected rays
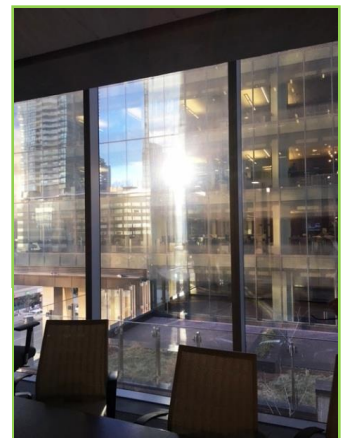
Commonly Asked Questions

1. *How is the automatic shade system programmed to predict sun penetration?*

The sensors are updated (re-commissioned) every three months to account for the position of the sun in the sky and the surrounding environment that may cast shadow or reflect sun rays. The reflection schedule is reviewed semi-annually in June and December.

If tenants wish to review specific areas within their premises that the sensors should account for, contact SFC Property Management. Submitted comments will be provided to EllisDon as part of the recommissioning process and/or the reflection schedule review. Please note new information may only have a minimal effect on the movement of the automatic shades.

2. *Most of my colleagues and I like to enjoy the view and sunshine, can I control the shades?*

The shades cannot be controlled manually for a prolonged period. The system is meant to ensure that there is no direct sunlight exposure on computer screens, as well as regulate office temperature. If shades are not lowered in a timely fashion, colleagues who work near a window may not be able to see their computer screen clearly or feel overheated due to direct sunlight or reflection.

3. *The room is not bright enough for me, what can I do?*

The brightness of a room is set by your company's standard. The automatic shade system is programmed to ensure that each tenant's lumen/brightness requirement is met. If you are strongly affected by low light availability, consider speaking with your office manager. You may be able to receive task light or arrive at a solution that enhances your working environment.

4. *Why can't occupants control the shades?*

We all have different preferences when it comes to comfort and lighting levels. It is important to make sure that the majority of people who work at /SFC are provided with the most optimal thermal and lighting conditions. Central control helps ensure there is low variability in daily indoor conditions.

5. *What about meeting rooms? Can we control the shades for presentations?*

Yes. Temporary manual override of the automatic shades is available. Place a work order with Tenant Services to schedule an override 24 to 48 hours prior to the meeting. Alternatively please note additional black out shades are a possible option, which will require additional software programming within your premises. Please contact /SFC Property Management office for more information.

6. *Why do the shades take so long to adjust to sun conditions?*

The system is set so that shades adjust to new conditions every 10 minutes. This timeframe addresses tenant comfort (e.g., glare or overcast conditions), while also minimizing frequent shade movement.

More Info + Assistance

➔ To request temporary manual control of shades for a meeting, contact Tenant Services by phone: (416) 364-4110; by email: **sfcservices@quadreal.com**