

# Electrical Assist - SDSe

SPACEFILE'S SMART HIGH DENSITY STORAGE SYSTEM



SDSe Electrical Assist

The Spacefile SDSe System is a state of the art logic system for mobile storage systems that offers the flexibility, reliability and durability required by the end user.

The SDSe System software is developed utilizing ISO9001 certified procedures.



- ▶ **Modular**  
Systems available up to 60 feet long
- ▶ **Versatile**  
Available with both Spacefile ThinLine and LT shelving
- ▶ **Adaptable**  
Suitable for many different storage applications
- ▶ **Safety First**  
Multiple Safety features that provide safe and reliable operation for years

# Spacefile is the best choice for your high density storage needs

## SDSe System Software

The software for the Spacefile Electrical Assist system (SDSe) has been developed to comply with QS 9000 certified methods and procedures.

The logic system allows user function programming and system adjustment programming through the use of a program which is provided on a CD ROM.

Component Assembly for the logic system circuit boards also utilizes certified ISO9001 procedures.

## Testing Requirements

The entire logic system has been approved by UL 1950, cUL, ENEC, CE, IEC 950.

## Operation

The SDSe logic system allows for control and system security access of the mobile storage system through user operation or from a PC utilizing RS485 communication or from a simple one touch hand held transponder device. The logic system also allows remote system preventive maintenance monitoring and remote service.

Our system interface allows uncomplicated user reprogramming without the need to use specially trained outside personnel.

## User Interface

User interface to operate the system is accomplished through the use of a heat sensitive or pressure sensitive touchpad. The user interface does not incorporate moving parts. User interface provides, as a standard, a contact area large enough to enable handicapped users easy access to the system. It also allows "hands full" activation by system users.

User interface or touchpad provides a clear and easy to understand indication that a carriage has been secured for limited access. It also provides a diagnostic display that gives a clear indication of a system operating problem. The logic system is then able to indicate the type of problem shown on the user interface.

## Carriage Movement

The Spacefile SDSe Logic system provides soft carriage starting and stopping to avoid unnecessary motor and parts wear.

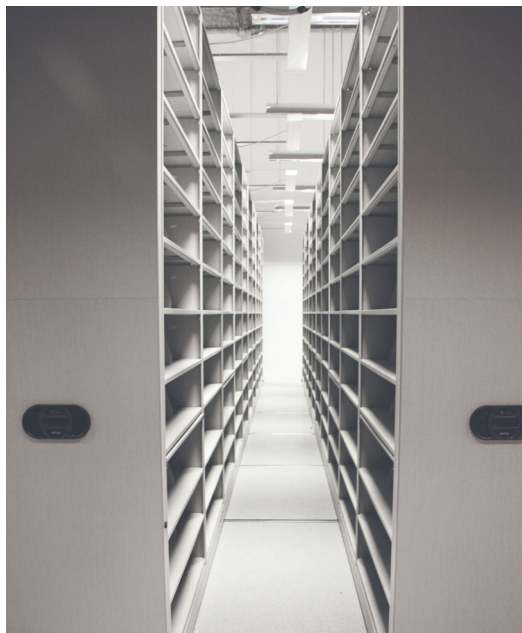
The logic system is able to monitor motor current consumption to automatically detect changes in carriage weight load. This means that system will provide consistent running speeds and stopping distances even though carriages within a system are carrying significantly different weights.

## Carriage Stopping Control

Our system provides for smooth stopping through the use of infrared analog sensors, which automatically calculates and adjusts slow down and stopping time requirements based on the weight being carried. This system does not utilize mechanical or moving parts to accomplish carriage stopping.

## Carriage Stopping Distance Adjustment

The logic system provides for adjusting carriage stopping distances to allow a greater distance between carriages in their closed positions. This allows for storage of items extending past the edge of the system shelving. The stopping distance change is accomplished with no moving parts or mechanical devices.



Unlimited Storage Options

# The Spacefile Electrical Assist System provides a safe, accessible, versatile and intelligent storage system

Stopping distance adjustment is accomplished from a PC and by at least one other method. The one touch transponder is one such method of adjustment.

### Converting Mobile Carriage To Stationary

The system allows all carriages to be converted from stationary to mobile or mobile to stationary to accommodate changes in mobile system usage levels or patterns on a temporary or permanent basis.

The logic system allows for this conversion directly from a PC or by an authorized user utilizing the one touch hand held device.

### Creating Dual Access Aisles

The logic system is designed in such a way that only one CPU is required for each carriage with the capability of controlling and synchronizing the keypads at either end of the carriage.

### Limiting Aisle Access (Security Function)

The system allows for limiting specific aisle access to specific authorized users. Access to secured aisles by authorized users is accomplished in a simple one-touch manner using transponder technology. The logic system allows access authorization changes to be made remotely from a PC and permits up to ten unique security authorization patterns. The system allows for user changes of the access keys through the use of a PC without special personnel or training required.

### Multiple Safety Systems

There are at least two built-in safety systems as standard features included with all our logic units.

The first safety system is passive requiring no action by the user

for activation. Activation occurs automatically upon the opening of an aisle.

This “passive” safety system remains in force restricting carriage movement until a user touching the touchpad on both sides of the open aisle deactivates it. The safety system requires the next user to touch the touch pad on both sides of the open aisle prior to creating a new aisle. The logic system allows user programming of passive safety unblock duration times.

The SDSe’s intelligent Logic System provides the second safety feature which is standard with all units shipped. The Logic System has the ability to recognize

a change in the motor current used as the result of pressure applied against the moving carriage or its contents. The system will instantly shut down carriage movement when motor current goes outside of the acceptable range.

The system is capable of interface with additional safety systems such as PIR detection systems, safety plinth or safety sweeps. It also allows for user programming of aisle light activation and duration time to indicate when an aisle is opened.

In the event of power failure the logic system is capable of recognizing that carriages have been stopped during an aisle opening sequence and automatically activate the passive safety system. When power is restored, this capability will prevent movement until after the passive safety system is deactivated. This feature is considered to be of key importance because a user may enter a partially opened aisle during the power outage and still be in the partially opened aisle when power is restored. (con’t)



User Friendly Interface

## Integration - The SDS<sub>e</sub> Has The Ability To Interface With Building Environmental Systems

The logic system is capable of interfaces with environmental systems such as fire alarm and suppression, temperature control, humidity control and ventilation control.

The system allows for user programming of a defined carriage response to activation by such systems. It also allows for user programming of automatic carriage positioning in off-hour periods.

### SPACEFILE ELECTRIC ASSIST (SDS<sub>e</sub>) FEATURES:



**Overhead Scissor Arms**  
Overhead Scissor Arms for power and communication wires.



**User Friendly Controls**  
User friendly controls interface with different keys for security and safety.



**Infrared distance sensor**



**Distance sensor between carriages**



**ADA Compliant Ramp**  
ADA Compliant ramp for safe access to the system.

Available with UPS battery backup for power failures

Note: SDS<sub>e</sub> shares mechanical components with SDS

If your storage needs are expanding and your space is not, we can help.  
Contact our showroom or a Spacefile dealer to find a storage solution that fits your needs.

SE1201

**Storage Solutions**   
for every space

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