

Power window, *non-contact*

Lily's window *knows* where her hands are,
just in case her mother doesn't.



Provides a new standard of care and comfort

Smart Close® senses and responds to a human presence, detecting a change in its electromagnetic field and instantly reverses the moving door/window. S5 compliant.

Smart Close® enhances 'care and comfort' with these features:

- Express window zero force non-contact obstacle detection within a visible distance of up to 10 mm (3/8")
- Window operation without key in ignition
- Key fob (RKE) window close; remote control
- Automatic window close (on driver vehicle exit)
- Automatic rain sensing close
- Automatic hot weather window venting
- Allows faster closure speed
- Eliminates false closure reversals caused by environment and installation

Unexpected 'up market' feature heightens brand awareness

Allows for capacitive iPad-style (finger gesture) window switch vs. mechanical switch

- Wide freedom of switch styling now possible
- Great styling enabler in direction of iPad inspired interior

*smart **Close**® the new standard of care*

NARTRON

"AMERICA'S TOP 50 INNOVATOR"

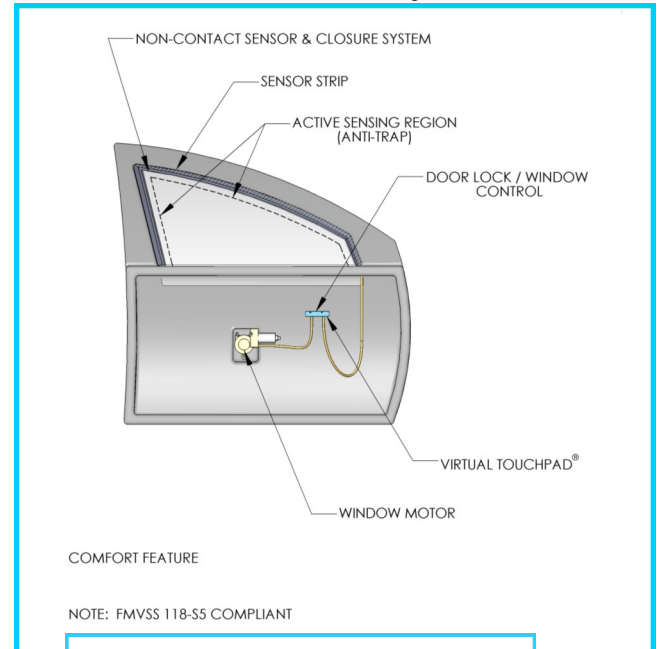
231.832.5525 5000 N. US 131 Reed City, MI 49677

System P/N 1310689

Imagine a power closure system so sophisticated it can *sense human presence* without contact.

When a human presence is sensed by a **Smart Close**® equipped power closure, the system reverses without contact. Our unique sensor, typically placed in the weather seal, creates a “space-charge” proximity field that detects a child’s presence and won’t allow closure. Our electronic module controls the motor, and commands panel position reversal, even if the switch is being held in the closed position. When coupled with position sensors, the exact return location can be precisely engineered, all without contact.

The **Smart Close**® system interfaces with all power closure systems. This includes “one-touch-up” express-close power windows, power liftgates, sliding doors, sunroofs, convertibles, and panoramic roofs to provide injury-free, no-trap protection.



Smart Close® TYPICAL APPLICATION SCHEMATIC

Cost-effective, **Smart Close**® systems incorporate 4 operating modes:

1. **Non-contact mode**—Human presence alters the electrical space-charge field creating early detection. Detection causes the closure to reverse prior to actual physical contact.
2. **Contact mode**—(redundant sensing) Reacts to forces created between obstructions and the sensor strip to reverse the closure after less than 40N of applied force.
3. **Speed mode**—(redundant sensing) Monitors window speeds with Hall sensor to identify the presence of an obstruction in the path of the closure.
4. **Remote operation**

For more information:

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