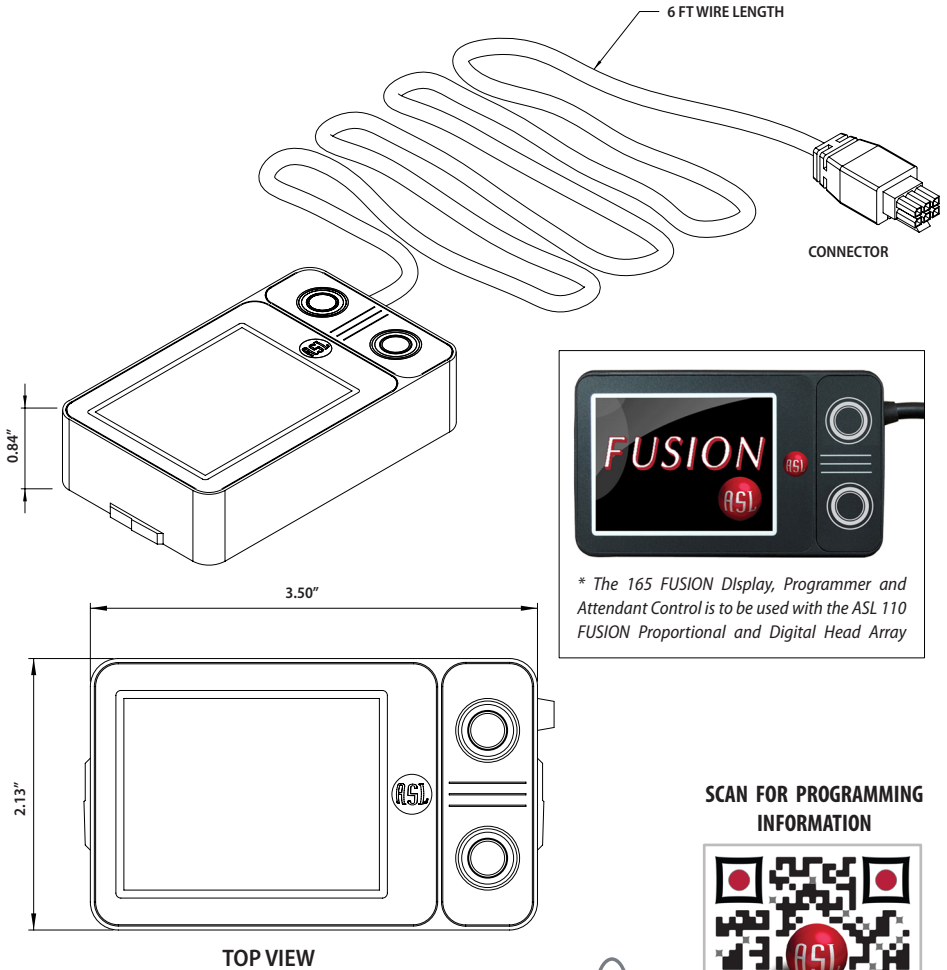




ASL 165 FUSION Display, Programmer and Attendant Control*

PATENT PENDING



* The 165 FUSION Display, Programmer and Attendant Control is to be used with the ASL 110 FUSION Proportional and Digital Head Array

SCAN FOR PROGRAMMING
INFORMATION



FUSION 165 DISPLAY, PROGRAMMER AND ATTENDANT CONTROL EXPLANATION OF PARTS

The ASL 165 FUSION Display, Programmer and Attendant Control has multiple features. It can be used to personalize the FUSION to the specific patients' needs. It can also be used as a display, so the patient will know what they are controlling, such as: **Bluetooth**, **Next Function**, **Next Profile**, and **On/Off** of the Head Array. In addition, the 165 FUSION can be used as an Attendant Control which works in conjunction with, or can take over, the FUSION Drive Control.

The **Startup Screen** appears while the system is booting up for 2 seconds. During the startup process, the system is running a diagnostic test, if there are any errors a fault screen will appear. After the start up system check is complete (without fault), the Main User Menu will show on the screen.



When a switch is plugged into the User Port if the FUSION Interface, a momentary activation of the switch will activate the highlighted top selection. As the patient holds the switch to the adjusted time, the system will move to the next line item that is turned on in the FUSION display.



An auditory tone will be heard: *One (1) beep for On/Off, two (2) beeps for Bluetooth, three (3) beeps for Next Function and four (4) beeps for Next Profile.* When R-Net is enabled, the auditory cues are: *One (1) beep for On/Off, two (2) beeps for Bluetooth, three (3) beeps for Toggle/Forward Reverse, and four (4) beeps for User Menu and five (5) beeps for Seating.*

OUT OF NEUTRAL



The **Out of Neutral** Screen will appear if any of the pads are activated while the FUSION is powering up and when power up idle is off. As a safety precaution, it will instruct the user to move away from the activated pad.

FAULT SCREENS:

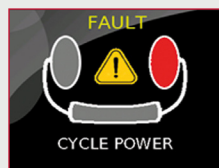
The **Fault Screen** will be shown if the system detects a faulty pad. The faulty pad is shown in red as depicted in the following screens indicating a **Left Pad Fault**, a **Center Pad Fault** and a **Right Pad Fault**. It is possible to indicate multiple pad faults.



Left Pad Fault



Center Pad Fault



Right Pad Fault

When this occurs, cycle power on the wheelchair and resume normal operation. If the problem persists, contact ASL or the provider.

DISPLAY MENU

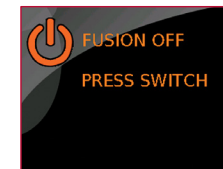
MAIN USER



The Main User Screen shows all the features available on the FUSION. When a switch is plugged into the User Port of the FUSION interface, a momentary activation of the switch will activate the highlighted top selection.

When the patient holds the switch to the adjusted time, the system will move to the next line item in the FUSION display. When the same switch is then activated in a momentary activation, it will activate that selection.

POWER OFF



When the Power On/Off is highlighted a momentary switch activation will turn the FUSION off and on. When the FUSION is Off, the screen will change color to indicate the Head Array is off and will not react to any pad activation.

MAIN USER - BLUETOOTH



Once in the Bluetooth Mode, the FUSION will automatically connect to the selected powered receiver and the FUSION Head Array will be the activation for that accessory.

In Bluetooth Mode, the FUSION will connect to three (3) ASL Accessories, one at a time, shown below:



557-3 Bluetooth Switch Interface



558 Mouse Emulator



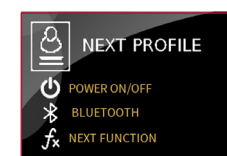
545 Tecla E

MAIN USER - NEXT FUNCTION



When Next Function is highlighted, a momentary switch activation will move through the functions programmed within a profile.

MAIN USER - NEXT PROFILE



When Next Profile is highlighted a momentary switch activation will move through the profiles that are turned on in the chair.

MAIN USER - ATTENDANT CONTROL



When the user taps the Attendant Control icon, the Programmer will display the Attendant Control screen.

When the Display is showing the full screen Attendant option, the Attendant Control is active.

When the Attendant Control is turned on and pressed, the following screen is displayed.

* See **Understanding the Attendant Control** section for more information.



Left: Attendant and Head Array are active.



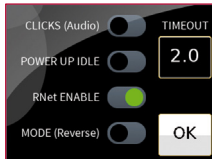
Center: Attendant is active, Head Array is inactive.



Right: FUSION is powered off. Attendant is active and Head Array is off.

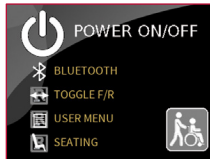
R-NET FEATURES IN FUSION

R-NET ENABLED



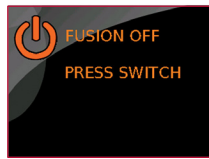
When the R-Net Feature is enabled, it displays the R-Net Main User Screen. This indicates that the system will be set up to be used with R-Net electronics. A long press will advance to the next feature.

R-NET MAIN USER



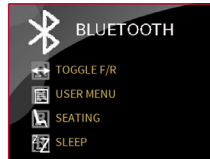
The R-Net Main User Screen shows all the Functions available on the FUSION with the R-Net Feature Enabled and Power On/Off Feature Active. When the patient holds the switch to the adjusted time, the system will move to the next line item in the FUSION display. When the same switch is then activated in a momentary activation, it will activate that selection.

POWER OFF



When the Power On/Off is highlighted, a momentary press will turn the FUSION off and on. When the FUSION is Off, the screen will change color to indicate the Head Array is off and will not react to any pad activation.

R-NET MAIN USER BLUETOOTH



In Bluetooth Mode the FUSION will connect to (3) three ASL Accessories, one at a time, shown below:



557-3 Bluetooth Switch Interface



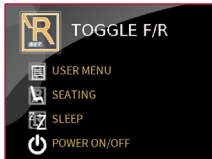
558 Mouse Emulator



545 Tecla E

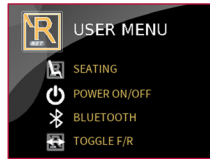
Once in the Bluetooth Mode, the FUSION will automatically connect to the selected powered receiver and the FUSION Head Array will be the activation for that accessory.

MAIN USER - TOGGLE F/R



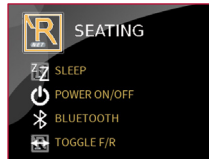
When the Toggle F/R is highlighted, a momentary press of the switch in the user port will toggle the Drive Control from forward to reverse.

MAIN USER - USER MENU



When User Menu is highlighted a momentary press will put the R-Net Omni into the User Menu which will allow someone to access the list of modes such as, Seating, Speed Adjust, and Lights. The backpad of the FUSION will scroll you through the list of modes. To select a desired mode like Seating, you activate the right pad which gives you access to the Seating Options. A long hold will take you to the Seating Mode.

MAIN USER - SEATING



A momentary press of the switch while in R-Net Seating will turn the back pad of the FUSION Off. This will automatically change the left and right pad to work in Digital for easy access and navigation. A momentary activation of the switch will turn the back pad on and take you back to the User Menu where a momentary switch activation will exit the menu, so you can go back to driving.

MAIN USER - SLEEP



When sleep setting is turned on within the R-Net system, a momentary press of the user switch when sleep is on the top line of the FUSION Display will send a three second switch activation to put the power chair into sleep mode. A second activation will wake up the power chair. Long hold must be set to three seconds in R-Net programming for this feature to work.

MAIN USER - ATTENDANT CONTROL



When the user taps the Attendant Control icon, the programmer will display the Attendant Control screen. When the display is showing the full screen attendant option, the Attendant Control is active.

When the Attendant Control is turned on and pressed, the following screen is displayed.



Left: Attendant and Head Array are active.



Center: Attendant is active, Head Array is inactive.

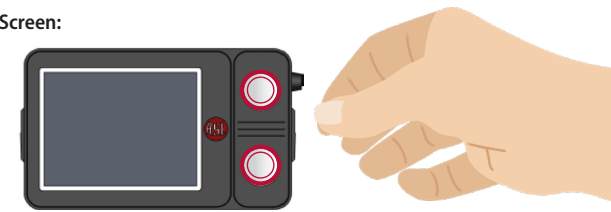


Right: FUSION is powered off. Attendant is active and Head Array is off.

PROGRAMMING THE DISPLAY

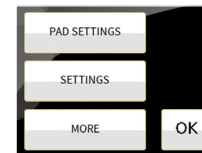
Activating the 165 Display Programming Screen:

Simultaneously press down on both top and bottom circular buttons on the right side of the display. This will activate the screen to begin programming.



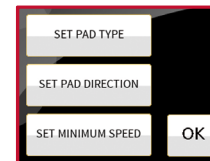
FUSION 165 DISPLAY, PROGRAMMER AND ATTENDANT CONTROL MAIN PROGRAMMING

PROGRAMMING



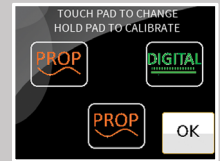
The Initial Programming Screen is activated by pressing the top and bottom buttons simultaneously for 2 seconds. When Pad Settings is selected a new screen will appear.

PAD SETTINGS



Set "Pad Type" directs you to the Proportional Digital Selection.

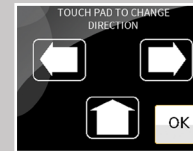
PAD TYPE



Tapping "Prop" on the pad will change it from Proportional to Digital by each pad or direction.

In this example, the Left and Center Pad are set to Proportional and the Right Pad is set to Digital.

PAD DIRECTION

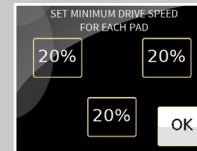


This allows the driving direction to change by pad. Touching the direction will scroll clockwise starting with the factory set direction.

The back pad will move from **Forward, Right, Off, Left** and then back to **Forward**. This is helpful for a patient that needs the back pad for a rest.

You can turn off the back pad, change the right switch to be forward, and move the right direction to another location such as, a hand or knee.

MINIMUM SPEED

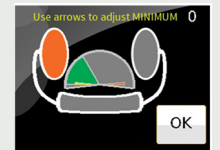


Set Minimum Speed: This setting will allow each pad on the FUSION to change the percentage of Digital to start the movement of the chair.

The factory setting in each pad is set to 20%. This will start the initial movement of the chair for the first 20% of the speed to be Digital. Pressing into the pads will make the chair move proportionally.

The selections are **15, 20, 25, 30, 35, 40** and **OFF**.

CALIBRATION MIN



CALIBRATION MAX

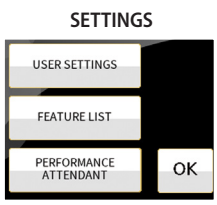


When the Proportional Programmed Pad is held for 2 seconds a calibration screen will appear. You will be guided to set up the Minimum and Maximum force required to gain proportionality.

When you push on the pad the green color is a real time guide for the pressure that a person is pushing on the pad. This can be set by each direction. The **Minimum** (in yellow) sets the force required to initiate the proportional movement. The **Maximum** (in red) sets the force to reach 100% of the programmed speed.

MAIN PROGRAMMING - SETTINGS

MAIN PROGRAMMING - SETTINGS CONTINUED



SETTINGS

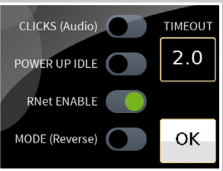
USER SETTINGS

FEATURE LIST

PERFORMANCE ATTENDANT

OK

This screen is shown when the USER SETTINGS button is pressed from the Main Programming screen.



USER SETTINGS

CLICKS (Audio)

POWER UP IDLE

RNet ENABLE

MODE (Reverse)

TIMEOUT 2.0

OK

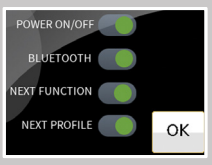
The Settings Screen will allow the Auditory beeps to be turned on and off.

Power Up Idle: When this setting is on it will allow the FUSION to stay off when the chair is turned on. An activation of the User Switch will turn the system on when a patient is ready to move.

Timeout: The length of time that the User Switch has to be held to move to the next setting. The adjustment range is in seconds: **1 sec, 1.5, 2, 2.5, 3, 4, 5, and OFF.**

R-Net Enable: Changes the User Screen to R-Net features for easier access.

Mode (Reverse): The Slide switch will change how the mode switch responds to activation. The choices are Mode and Reverse.



FEATURE SETTINGS

POWER ON/OFF

BLUETOOTH


NEXT FUNCTION

NEXT PROFILE

OK

This will allow the FUSION Features that a person is Not Using to be turned OFF.

If someone is not using Bluetooth through the FUSION, or is not changing Profiles, you can slide them to OFF and they will not appear on the Main Menu.



FEATURE SETTINGS IN R-NET

POWER ON/OFF

BLUETOOTH

TOGGLE F/R

USER MENU

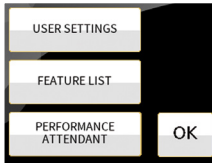
SEATING

SLEEP

OK

This will allow the FUSION Features in R-Net that a person is Not Using to be turned Off.

If someone is not using Bluetooth through the FUSION, or does not need access to the R-Net User Menu, you can slide them to Off and they will not appear on the main screen.



SETTINGS


USER SETTINGS

FEATURE LIST

PERFORMANCE ATTENDANT

OK

This screen is shown when the USER SETTINGS button is pressed from the Main Programming screen.



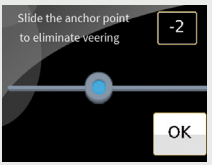
PAD PERFORMANCE

SET VEER ADJUST

ATTENDANT SETTING

OK

The Pad Performance screen is displayed when the "PERFORMANCE" button is pressed from the Pad Settings screen.



VEER ADJUST


Slide the anchor point to eliminate veering

-2

OK

The Veer Adjust will help a chair drive in a straight line by adjusting the signal from the FUSION Input to the Controller.

The range is from **-20 to +20**. Each chair will have a slightly different setting. The Factory Setting is set at **-2**.



ATTENDANT SETTING

ACTIVE

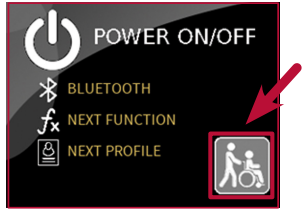
PROPORTIONAL

OK

The Attendant Settings screen is displayed when the "ATTENDANT SETTING" button is pressed from the Pad Performance screen.

When the Proportional line is green the Attendant Control will work proportionally. When it is not green, it works as a Digital Control.

UNDERSTANDING THE ATTENDANT CONTROL



When the Attendant Control is pressed, the following screen will be displayed.

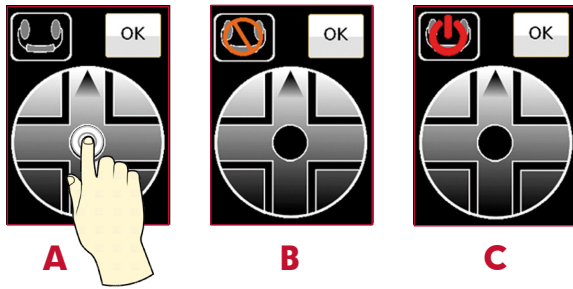
Left: Attendant and Head Array are active.

Center: Attendant is active, Head Array is inactive.

Right: FUSION is powered off. Attendant is active and Head Array is off.

When the Proportional Control is activated you can place your finger on the middle of the screen.

Moving your finger to the very edge of the outer circle will move the chair faster. Moving your finger around the circle, moves the chair in the corresponding direction.



Screen A

When the FUSION Head Array image is on the screen, the Attendant function works as an assist. Meaning, it works in conjunction with the FUSION if a person using the FUSION needs a little help while they are driving. You can help them 'Course Correct' while they are moving.

Screen B

If you want to stop the chair from moving, tap the picture of the FUSION on the screen and the FUSION will stop movement of the chair. When the picture of the FUSION has a circle with a line through it, the Attendant Control will still function, but the FUSION will not. This way the Attendant can manually control driving.

Screen C

When the display is in Attendant Mode and the FUSION icon has the power indicator on/off displayed, the power to the FUSION is OFF, but the power to the attendant is still active.

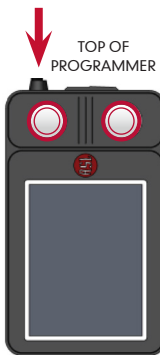
When the Proportional Slide is OFF the Attendant Control will work in a Digital Mode. Pushing the screen in the desired direction will move the chair in that direction to the speed that the Digital Minimum Speed is set.

When the user taps the Attendant Control icon, the programmer will display the Attendant Control screen.



To orient the Attendant Control - **Forward** will always be in the UP position when the cable is coming out of the top of the 165 Programmer.

When the display is showing the full screen attendant option, the Attendant Control is active.



MAIN PROGRAMMING - MORE SETTINGS

MORE SETTINGS

This screen is shown in response to pressing the MORE button on the PROGRAM SETTINGS screen.

The version of the ASL 110 FUSION and the ASL 165 Programmer and Display is also shown.

DIAGNOSTIC

Diagnostic: This screen shows the pad's, switch port, and user port activations. The "0" next to the Pad indicate the percentage of Drive Demand.

The Pad's illuminate in Orange when the Pad is set to Proportional and Green when set to Digital (not shown). When activated a Green light next to the Mode or User Port will indicate the switch is working properly. This tests the Mode and User Port for activation.

RESET SETTINGS

This screen is shown in response to pressing the RESET SETTINGS button on the MORE settings screen.

The Reset Screen will take the FUSION back to the Factory Settings. You will be prompted to be double sure that you want to do this.

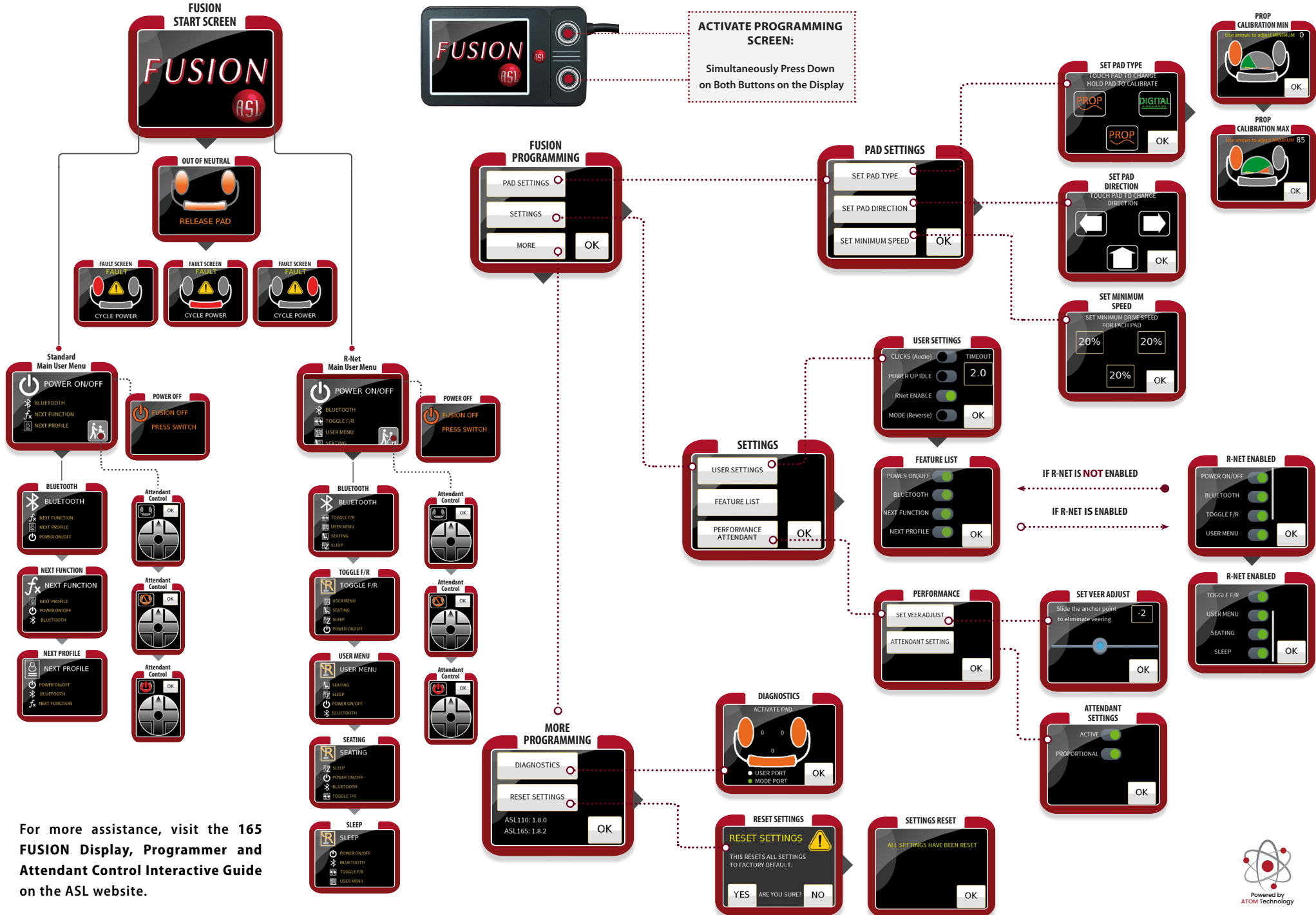
If NO is pressed, settings will not be changed, and no action is performed.

ALL SETTINGS RESET

If YES is pressed, the parameters are reset to **Factory Default** and this screen is shown. The system will tell you when all of the settings have been changed to Factory Settings.

The OK button will return the user to the Main Programming screen.

FUSION PROGRAMMING DIAGRAM



For more assistance, visit the 165 FUSION Display, Programmer and Attendant Control Interactive Guide on the ASL website.

SECURITY MEASURES

The ASL 165 FUSION Display, Programmer and Attendant Control is susceptible to moisture. If moisture contacts the Display, Programmer and Attendant Control, the touch screen may not work properly. Do not operate the ASL 165 FUSION Display, Programmer and Attendant Control without instruction. The ASL 165 Display, Programmer and Attendant Control should be mounted in a secure location. When using as a display, the ASL 165 FUSION Display, Programmer and Attendant Control should be mounted so it is visible to the patient. This device mount contains a magnet which may influence certain Medical Devices, i.e. ICD's and Pacemakers, when in proximity to it.

Installation of the ASL 165 FUSION Display, Programmer and Attendant Control, and the programming of the wheelchair electronics, should only be conducted by a specialist with an in depth technical knowledge of the ASL 165 FUSION Display, Programmer and Attendant Control and the wheelchair electronics. All testing and verification of the completed wheelchair equipment with the ASL 165 FUSION Display, Programmer and Attendant Control is to ISO/RESNA or applicable standards for the completed wheelchair, including RFI compatibility testing, is the sole responsibility of the wheelchair manufacturer.

WARRANTY

The ASL 165 FUSION Display, Programmer and Attendant Control is warranted to be free from manufacturing defects for two years from date of purchase.

This warranty shall not cover equipment modified or repaired by unauthorized personnel. ASL cannot be held responsible for damage caused by incorrect installation or incorrect use of the product. Misuse, mishandling, or storage is not covered by this warranty. The foregoing express warranty is exclusive and in lieu of any other warranties of any kind, whether express or implied, including the implied warranties of merchantability or fitness for a particular purpose, and is the sole and exclusive remedy for any defective product. The health care professional is responsible for understanding the intended use of the ASL equipment and the specification and safe programming parameters of the chair it is going on. The wheelchair manufacturer is responsible for testing and verification of the completed wheelchair equipped with the ASL 165 FUSION Display, Programmer and Attendant Control to ISO, RESNA or other applicable standards including RFI compatibility. RFI interference can impact the proper functioning of the wheelchair. Route and secure all cables in such a way in order to prevent damage by crushing, cutting or snagging. Incorrect installation, configuration, or programming could result in unsafe set up of the wheelchair for the user. ASL accepts no liability for losses of any kind which result for such conditions.

