

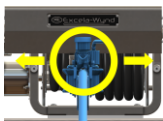


# ME9000-VSC CONTROLLER SERVICE KIT INSTRUCTIONS for ME9000LH-17/25 EXCELA-WYND™ HOSE REEL



## BEFORE SERVICING THE EXCELA-WYND™ HOSE REEL PLEASE READ THESE IMPORTANT SAFETY WARNINGS

**WARNING!** Risk of injury from pinch points – Keep hands and fingers away from hose guide.



**WARNING!** Risk of injury from pinch points – Do Not operate reel without gear and chain guards in place.



**WARNING!** Risk of injury from pinch / sever points – Keep fingers away from inlet flange.



**WARNING!** - Risk of injury - The hose reel is very heavy. Use a suitable mechanical hoist or crane to lift, move and set reel.



**WARNING!** - Risk of injury - Disconnect power and relieve system pressure prior to servicing reel and controller.



**WARNING!** This product contains a chemical known to the state of California to cause cancer and birth defects or reproductive harm.



**WARNING!** - Failure to follow these instructions or to properly install and maintain this equipment could result in an explosion and/or fire causing property damage and personal injury or death. MEC equipment must be installed, operated and maintained in accordance with federal, state and local codes, and manufacturer's instructions. The installation in most states must also comply with NFPA No. 58 and ANSI/CGA-2.1. Only personnel trained in the proper procedures, codes, standards and regulations of the LP-Gas industry should install and service this equipment. Installation or service inconsistent with these instructions may damage the reel, increase the risk of injury or void the warranty.

**WARNING!** Contact BASE Engineering prior to resetting the circuit breaker!

These instruction cover the ME9000-VSC Service Kit installation, configuration and operation.

### TOOLS REQUIRED:

- #2 Phillips Screwdriver
- 1/4" Slotted Screwdriver
- Ratchet Wrench and Extension
- 1/2" Socket

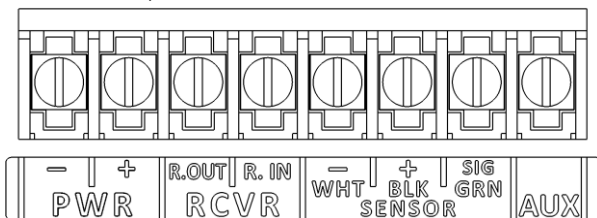
### REMOVE VSC9000 VARIABLE SPEED CONTROLLER

**Note:** The VSC9000 controller is located in the BASE Engineering enclosure near the truck cab. (Enclosure contents may vary.)

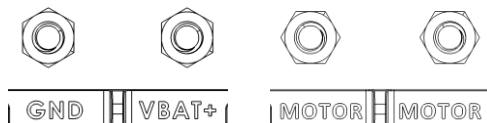
1. Turn truck ignition off and disconnect the battery.
2. Remove the cover from the BASE enclosure.

**Note:** Taking a picture of the wiring or marking each wire as it is disconnected can reduce the risk of miswiring the new controller.

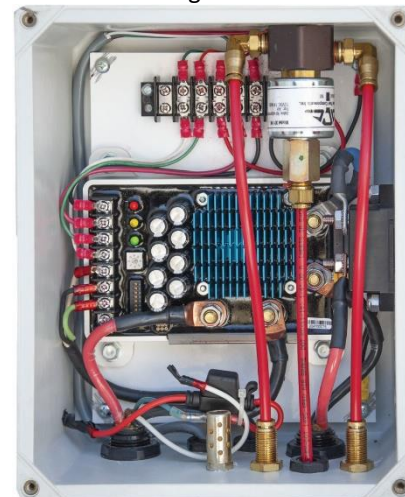
3. Using a slotted screwdriver, disconnect all wires from the terminal block.



4. Using a 1/2" socket, ratched wrench and extension, disconnect all wire lugs from the Battery and Motor terminals posts.



5. Remove the (4) controller mounting screws and carefully remove the VSC9000 from the BASE enclosure.



### INSTALL NEW VSC9000 VARIABLE SPEED CONTROLLER

6. Make sure truck ignition is off and the battery is disconnected.
7. Reverse steps 5 through 3 to install the new VSC9000 Controller.
8. Confirm that all wire connections are correct and secure.



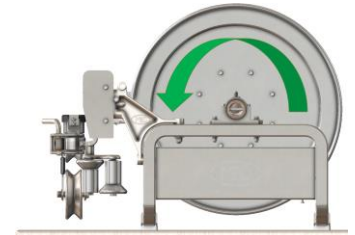
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**CONFIGURE THE VSC9000 VARIABLE SPEED CONTROLLER** - See controller configuration diagram on page 4.

**NOTE:** The motor lead corresponding to (+) for REEL IN is marked with **red** at the factory for the correct direction of rotation as shown. If the motor leads are inadvertently switched and the motor rotates in the wrong direction, sliding DIP switch 8 to “ON” will reverse the polarity and direction of rotation eliminating the need to physically reverse the connections.

DIP SWITCH KEY	
<input type="checkbox"/> ∞	MOTOR REVERSE
<input type="checkbox"/> 7	TEST MODE
<input type="checkbox"/> 6	SENSOR OVERRIDE
<input type="checkbox"/> 5	(FUTURE USE)
<input type="checkbox"/> 4	(FUTURE USE)
<input type="checkbox"/> 3	(FUTURE USE)
<input type="checkbox"/> 2	100' HOSE LENGTH
<input type="checkbox"/> 1	125' HOSE LENGTH
<input type="checkbox"/> ON	



## 9. Set Hose Speed

**NOTE:** The controller is factory set to 2.9 MPH.

**ASKW Remote** - Use a slotted screwdriver to turn the Speed potentiometer on the controller so the arrow points to the desired hose speed setting.

SETTING REWIND SPEED (FACTORY SETTING IS 5 )	
POT. SETTING	0 1 2 3 4 5 6 7
HOSE SPEED (MPH)	1.5 1.8 2.1 2.4 2.6 2.9 3.2 3.5

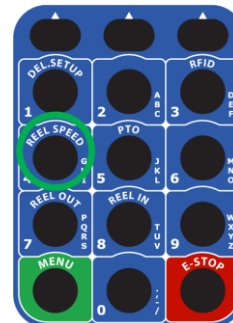
USE SCREW DRIVER TO TURN POT. SO ARROW POINTS TO DESIRED SPEED

**PC3 Remote** - Follow the steps below to set the desired hose speed:

- Press the “REEL SPEED” button to bring up the Reel In speed screen.
- Use the “UP” and “DOWN” arrows to highlight the desired speed.
- Use “SELECT” to accept the highlighted speed.

### NOTE:

- The VSC9000 automatically detects PC3 reel speed setting and overrides the speed potentiometer setting.
- If troubleshooting your remote, please refer to your BASE Engineering product manual or contact BASE Engineering support.



MAX. REEL IN SPEED	
8	(3.5 MPH)
7	(3.2 MPH)
6	(2.9 MPH)
5	(2.6 MPH)
4	(2.4 MPH)
3	(2.1 MPH)
2	(1.8 MPH)
1	(1.5 MPH)

PRESS MENU TO EXIT

UP DOWN SELECT

- Set Hose Length** to match the hose installed on reel by sliding the DIP switch corresponding to the correct length.

### NOTE:

- The controller is factory set for a 150' long hose.
- Since the hose length and size determine the number of wraps of hose on each layer, the controller must be set to match the installed hose length to assure proper automatic speed changes and to maintain the selected hose speed.

SETTING HOSE LENGTH (FACTORY SETTING IS 150')		
150'	125'	100'
SW1 OFF	SW1 ON	SW1 OFF
SW2 OFF	SW2 OFF	SW2 ON
<input type="checkbox"/> ∞	<input type="checkbox"/> ∞	<input type="checkbox"/> ∞
ON	ON	ON

- Confirm Proper Operation** by running the **Test Mode**:

- Slide DIP switch 7 “ON” to enable test mode.
- Set the Park brake, reconnect the truck battery and turn the ignition on.
- While watching the LED indicators on the VSC9000 controller:
  - Press and release the “REEL OUT” button on the PC3 or ASKW remote. (Yellow LED on controller lights.)
  - Have an associate pull 20 to 30 feet of hose off the reel at a fast walking speed.
  - The **Green** LED **must turn on and off** as the reel rotates. If it doesn't turn on, recheck the connections.
  - If the **Green** LED doesn't turn on and off, the sensor needs to be adjusted or replaced.
    - To adjust the sensor, see MEC Form 1176-SEK Sensor Kit Instructions, or
    - To replace the sensor, use ME9000-SEK Sensor Kit.

**NOTE:** Turn DIP switch 7 “OFF” when done, press REEL IN button on PC3 or ASKW remote to load hose on reel then turn off truck.

- To Continue Using Reel** until the sensor can be adjusted or replaced, **turn on Sensor Override** by sliding DIP switch 6 to “ON”. This will disable constant speed operation but allows Reel-In to function at the speed the potentiometer is set to.

**NOTE:** DIP switch “6” must be moved to “OFF” to return to normal operation.

DIAGNOSTICS	
<input type="checkbox"/> ∞	DIP 7 - TEST MODE
<input type="checkbox"/> 7	GREEN LED BLINKS
<input type="checkbox"/> 6	ON SENSOR SIGNAL -
	TURN OFF WHEN DONE

DIAGNOSTICS	
<input type="checkbox"/> 7	DIP 6 - SENSOR
<input type="checkbox"/> 6	OVERRIDE - TURNS
<input type="checkbox"/> 5	OFF CLOSED LOOP
	SPEED CONTROL

- Turn truck ignition off and replace the cover on the BASE enclosure.



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## STATUS INDICATORS

The VSC9000 has LED's that light to indicate status or a fault condition when the controller is powered on:

**NOTE:** As safety interlocks, power is removed from the VSC9000 if either the Park brake is NOT set or the ignition is off.

### A. Green LED on

- Solid Green**- Controller is powered on, no fault condition has occurred and controller is ready for operation.
- Blinking Green** - Voltage on input power lugs (VBAT+ and GND) is less than 10 VDC due to low vehicle battery voltage or faulty ground connection.

### B. Yellow LED on - Controller is powered on, no fault condition has occurred and REEL IN or REEL OUT is active.

**NOTE:** The yellow indicator stays on when the two minute Reel Out timer is running after REEL OUT is pressed.

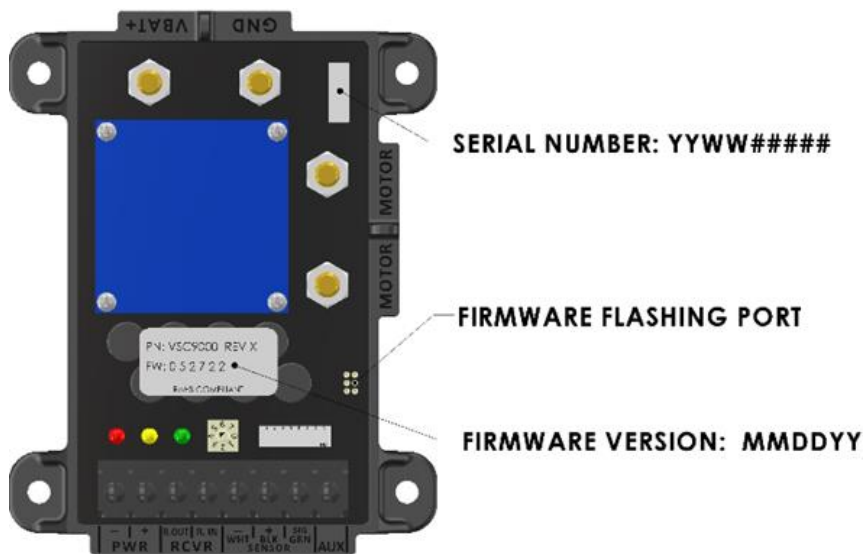
### C. Red LED on - A fault condition has occurred:

- Solid Red**
  - An extremely high motor load lasting more than 15 seconds has triggered software over-current protection. This fault automatically resets after (5) seconds and normal function resumes.
  - Hardware power supply 170 amp over-current protection triggered (extremely rare). This fault is reset when power to the controller is cycled by turning the ignition off and back on .
  - Hardware motor controller fault (extremely rare). Resets when power is cycled.
  - Voltage on input power lugs (VBAT+ and GND) is critically low (4 to 6 VDC) and preventing operation.
- Blinking Red** - Motor is driving for 10 seconds with no sensor signal received. Indicates reel is not turning or sensor or sensor wiring is faulty. Use Sensor Override mode (DIP switch 6 ON) until sensor is serviced.



## UPGRADEABLE FIRMWARE

- The VSC9000 has a connection port that allows firmware to be upgraded in the field.
- See ME9000-FFK Firmware Flashing Kit and Form 1176-FFK for service kit instructions.




## SAFETY, PROTECTION AND FEATURES

- Hose-end remote-control Reel In operation eliminates trip hazard associated with rewinding a loop of hose near the driver's feet.
- Constant, selectable hose speed keeps driver walking at safe speed regardless of season, terrain or distance to the tank.
- Latched-on Reel Out operation allows two-hands-on-hose while pulling, reducing back injuries.
- Auto-push powers the reel up to speed during Reel Out to take the initial hose pull effort off the driver.
- Remote Reel In operation and Level Wynd reduce shoulder injuries by eliminating repetitive hose guide movements.
- Safety interlocks with park brake, transmission and PTO prevent accidental operation while driving or filling tanks.
- Rewind speed automatically slows as driver approaches truck to reduce hand injuries from contacting rollers.
- Over-current, over-temperature, reverse polarity, over-voltage / under-voltage protection prevent damage and unsafe operation.
- Soft-start and soft-stop smoothly ramp up reel speed and braking, reducing drive system shock loads, wear and noise.
- Controllers provides feedback to driver by turning motor briefly to signal that Reel Out mode is active.
- EMI / RFI tolerant, fully potted, impact shock and vibration resistant construction.



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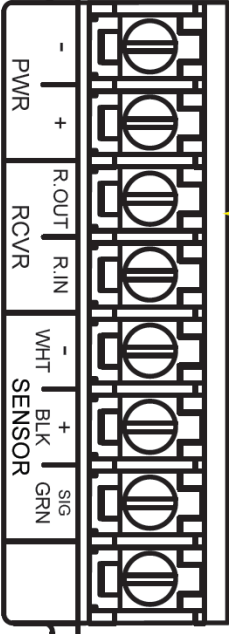


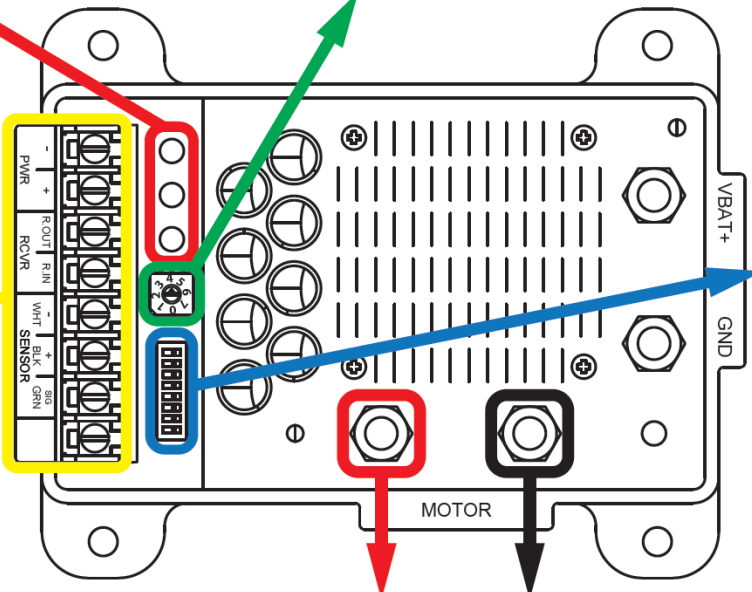
with the POWER of  
**BASE**  
ENGINEERING INC.

## VSC9000 EXCELA-WYND HOSE REEL CONTROLLER (PATENT PENDING)

LED INDICATORS	SETTING REWIND SPEED (FACTORY SETTING IS 5)	SETTING HOSE LENGTH
<b>GREEN</b> - READY	POT. SETTING	150'
<b>YELLOW</b> - REEL IN/OUT	HOSE SPEED (MPH)	125'
<b>RED</b> - FAULT		100'
	USE SCREW DRIVER TO TURN POT. SO ARROW POINTS TO DESIRED SPEED	

### CONTROL SIGNAL WIRING





**MOTOR WIRING (+) (-)**

**REEL IN (+) MOTOR LEAD MARKED WITH RED TAPE (USE DIP SWITCH 8 TO REVERSE MOTOR DIRECTION)**

### DIP SWITCH KEY


8	MOTOR REVERSE
7	TEST MODE
6	SENSOR OVERRIDE (FUTURE USE)
5	(FUTURE USE)
4	(FUTURE USE)
3	(FUTURE USE)
2	100' HOSE LENGTH
1	125' HOSE LENGTH

### DIAGNOSTICS

7	<b>DIP 7- TEST MODE</b>
6	GREEN LED BLINKS ON SENSOR SIGNAL - TURN OFF WHEN DONE
6	<b>DIP 6- SENSOR OVERRIDE</b> - TURNS OFF CLOSED LOOP SPEED CONTROL

Use the camera on your smart phone or device to scan the following QR codes to access additional instructions and videos.

Form 1176-IOM, Operation and Maintenance Manual



ME9000-VSC, Var. Speed Controller Kit Installation VIDEO



ME9000-SEK, Sensor Service Kit Installation VIDEO

