

**100**  
Years

1906 - 2006

**Balcrank**

## Fluid Inventory Control Systems



Balcrank offers an entire  
spectrum of fluid inventory  
control capabilities

# Spectrum 1000™

## Spectrum 1000™ Features

- Capacity: Unlimited number of fluids dispatched to a maximum 384 dispense points
- Electronic queuing of up to 900 dispenses from a PC
- User-friendly PC data interface with reporting and tank monitoring capabilities
- Job ticket printer available with keypad clearly reports all dispensing data
- PIN identification of up to 999 operators with separate management passwords
- Monitors and controls up to 16 tanks, 12 with sensor probes
- Dispenses in quarts, pints, liters, or gallons
- Totalizes tank levels in gallons or liters
- Simultaneous dispenses, one per zone
- Easy installation and flexible configuration for today's shop and for tomorrow's expansion
- Accurate dispense measurements - 0.5 to 8.0 gpm
- Large LED display - better than ready lights
- Operated by low voltage dc power
- Service fluids: motor oils, ATF, gear oil, anti-freeze, and WW fluid



## Spectrum 1000™ Components



**1 3110-011 Keypad.** Fluid control console for system zone. Pint, quart, liter, or gallon units of measure are program selectable. By means of a few simple inputs the operator can be recognized by the keypad, select the product to be dispensed, and preset the quantity to be dispensed. Optional ticket printer clearly reports all dispensing data. Keypad can control up to a maximum 12 dispense points per zone using two expansion power units. Model 3110-010 Keypad available with a built-in printer.



**2 Power Unit.** Included with the 3110-010 Keypad, the Power Unit supplies low voltage electricity to all system components. All electrical connections of the system are located on the large and sturdy housing of the unit to simplify and speed up the installation procedure. The Power Unit can directly control up to 4 reels. Attaches to 110 VAC source power.



**3 3120-046 - Expansion Power Unit.** An optional component, the Expansion Power Unit is connected to the main Power unit. It controls 4 additional reels by means of the same keypad. A maximum of two Expansion Power Units can be connected to the main PU increasing the maximum number of reels controlled by the same keypad to 12.



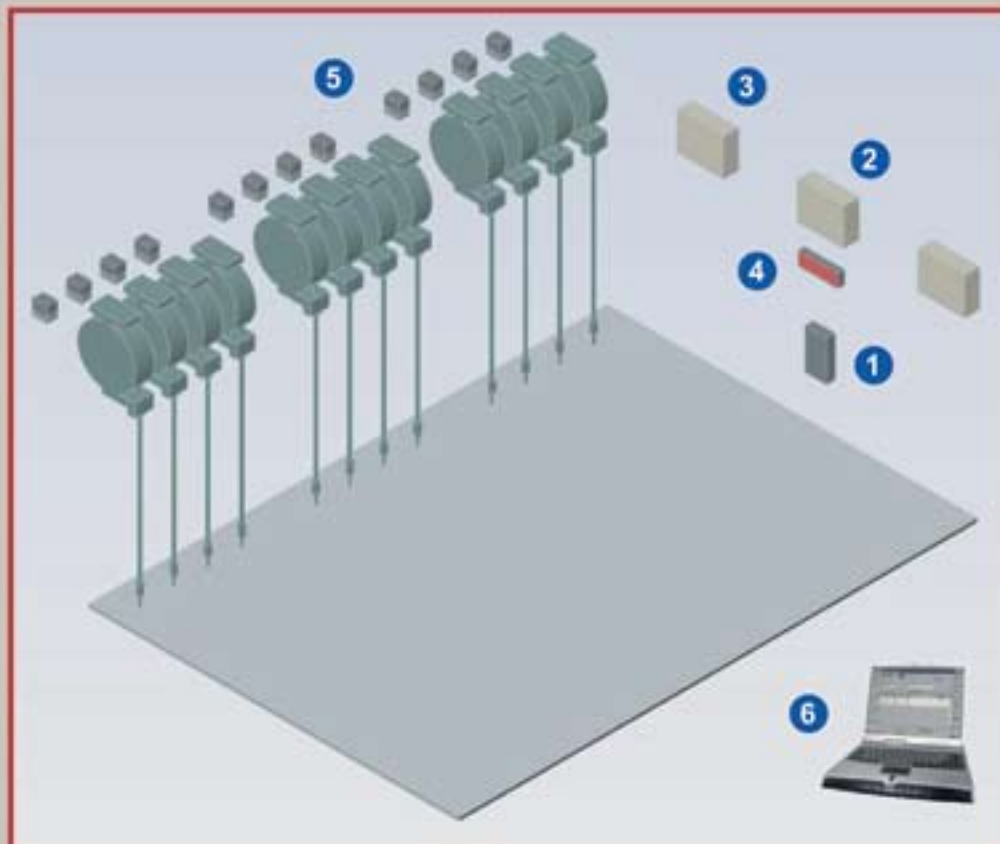
**4 3120-044 - LED Remote Display.** Clear and back-lighted 4" digits for high precision and convenient dispensing even away from the keypad. Blinking display alerts operator when fluid has been enabled for dispensing. On-going display of the batch total during dispense. Order one LED Remote Display per zone.



**5 3120-045 - Meter Valve Unit.** This unit takes the place of the impulse meter, fluid solenoid valve, and y-strainer. With this one unit, installation is simplified because system has fewer components. Install one Meter Valve Unit per reel.



**6 3120-047 - PC Interface Software.** User-friendly and developed for the Windows environment. Software enables the activation of any dispenser from the PC; optimizes printing output; applies filters and/or orders the output of the operations performed; organizes and prints reports relevant to products, operators, or jobs. Performs tank level management; updates and displays levels of each tank; warns manager of low level conditions; stops pumps in very low level conditions. Order one per system.



# Spectrum 100™ and Spectrum 50™

## Spectrum 100™ Features

- Capacity: Up to 4 fluids to 16 stations, 2 fluids to 32 stations, or 1 fluid to 64 stations
- Electronic queuing of up to five dispenses per fluid
- Automated priority assignment of dispense in the queue
- Optional data interface with host PC plus self-contained database interpreter software
- Optional job ticket printer capable of printing a record of each transaction, as well as daily and monthly historic dispense-log reports
- Self-test diagnostic procedure at each power-up of the system
- Tank level management including current tank level, tank capacity, and tank low-level alert
- PIN identification of up to 32 operators with separate protected ID for up to 5 program management functions
- Small console footprint: 7" L x 5" W x 1-3/8" H
- 24 volt dc power
- Service fluids: motor oils, ATF, gear oil, anti-freeze



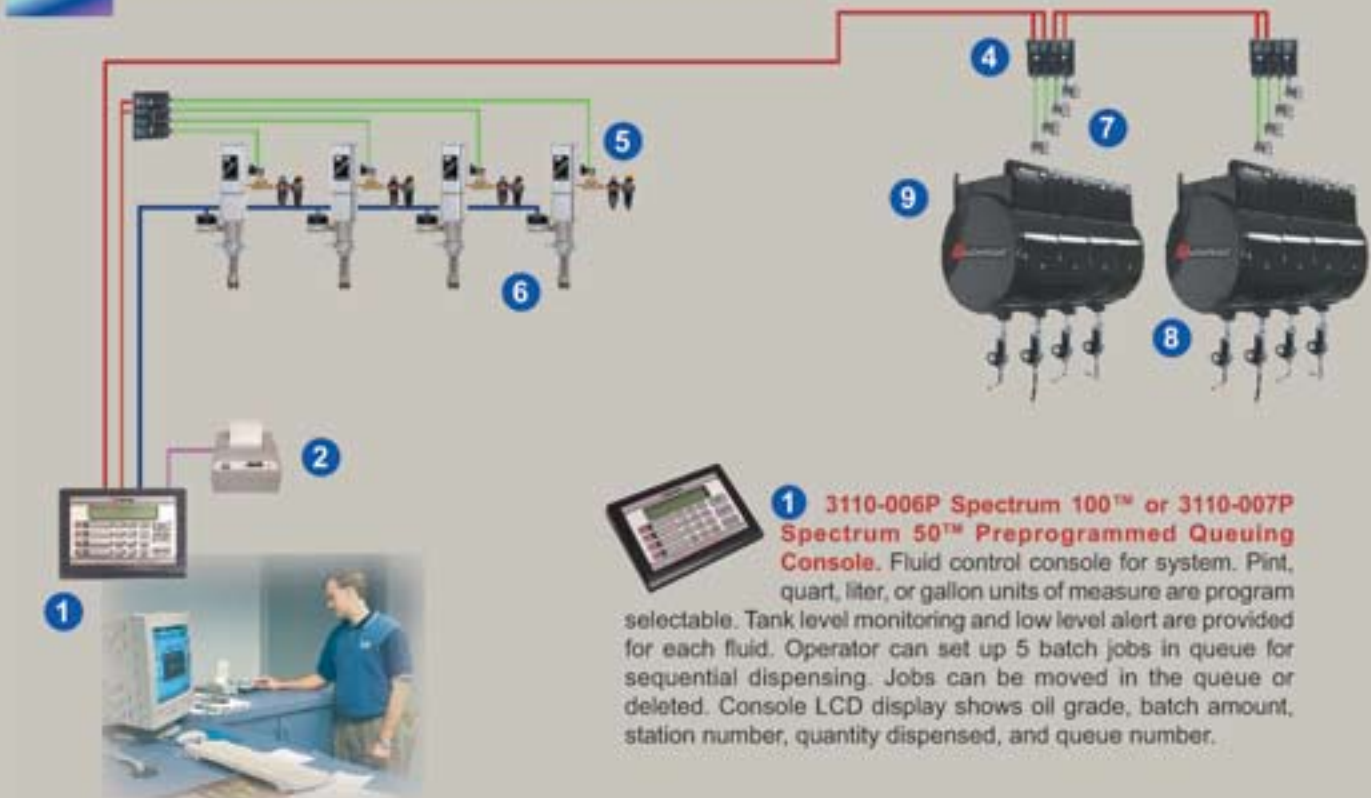
## Spectrum 50™ Features

- Capacity: Up to 2 fluids to 12 stations, or 1 fluid to 24 stations
- Optional job ticket printer available for Spectrum 50
- All other features listed above



# Spectrum 100™ and Spectrum 50™

## Spectrum 100™ and 50™ Components



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**1 3110-006P Spectrum 100™ or 3110-007P Spectrum 50™ Preprogrammed Queuing Console.** Fluid control console for system. Pint, quart, liter, or gallon units of measure are program selectable. Tank level monitoring and low level alert are provided for each fluid. Operator can set up 5 batch jobs in queue for sequential dispensing. Jobs can be moved in the queue or deleted. Console LCD display shows oil grade, batch amount, station number, quantity dispensed, and queue number.



**2 3120-035 - Printer.** Small desktop ticket printer uses standard 2.2" paper tape. Locate adjacent to the console to print data reports directly from the console microprocessor. Includes signal cable, power adapter, and cord for 110 VAC outlet.



**3 3120-026 - PC Interface Software and Cable.** Includes software to translate dispense records from the queuing console to preformatted Excel spreadsheets. The user also has the ability to create custom reports from the data. A cable to connect the queuing console to the user's computer is also included.



**4 3120-030 - Smart Controller.** Input/output communication module required to provide distributed control and communication to up to 4 air or fluid solenoids using the Spectrum 100™ Queuing Console. Wall or ceiling mounted near pumps and hose reels. Specify one per pump room plus one per bank of up to 4 reels.



**5 3120-033 - Air Solenoid Valve.** Provides automatic control of pumps from the Spectrum 100™ Console. 200 psi pressure rating, 24VDC, 3/8" NPTF ports. Valve wiring connects to terminals on the Smart Controller. Minimizes expensive oil spills from broken hoses or loose fittings when the system is not in use. Specify one per pump.



**6 3120-034 - Universal Impulse Meter.** In-line meter measures dispensed fluid and generates a digital pulse signal used by the console to determine pumped fluid quantities. Wiring connects directly to the console. 1,000 psi pressure rating, 1/2" NPT ports, measuring accuracy +/- 0.5%. Enhanced accuracy available by custom calibration during installation. Specify one per pump.



**7 3120-032 - Fluid Solenoid Valve.** Stops the flow of fluid instantly at the preset quantity. 1,500 psi pressure rating, 24 VDC, 1/2" NPTF ports. Valve wiring connects to terminals on the Smart Controller. Specify one per reel.



**8 3120-031 - Ready Light.** Alerts the bay technician when his fluid batch is available for dispensing. Bright green light is powered and operated through the Smart Controller. Ready light can be installed in 1/2" hole in arm of both Signature and Premium Series reels. Specify one per reel.



**9 3120-010 - Y Strainer.** For use in the fluid line prior to the fluid solenoid to assure reliable valve operation. Filter element is easily cleaned. 3/4" NPTF ports. Specify one per reel.

## Director Jr. Features

- Model 3110-008
- Capacity: 1 fluid to 10 stations
- Large LED information display
- Packaged in compact, attractive cabinet
- Totalizing feature for ease of fluid inventory record-
- 24 volt ac power
- Fluid measurement: pints, quarts, gallons, or liters
- Service fluids: motor oils, ATF, gear oil, anti-freeze



### Impulse Meters

- 3120-005 - Liters
- 3120-006 - Pints
- 3120-007 - Quarts
- 3120-008 - Gallons
- 3120-016 - Quarts, Coolant



Impulse meters convert fluid movement into a pulse count signal. Select meters to match the unit of measure desired for the installed system. For use in 12V, 24V, and 120V systems. Wetted parts compatible with petroleum products and engine coolant. 10 pulses per unit of measure. Order one per pump.

- 3120-010 - Y-Strainer - 3/4"
- 3120-040 - Y-Strainer - 1"

**Y Strainer:** For use in the fluid line prior to fluid solenoids to assure reliable solenoid valve operation. Filter element is easily cleaned. Order one per dispensing station.

Replacement filter screens:  
831843 - 3/4"  
831844 - 1"



### 3120-011 - Air Solenoid Valve

**Air Solenoids:** Provides for the remote shutdown of dispensing pumps from the fluid control console. Pressure rating 200 psi; port thread size 3/8" NPT(F); 24 Volt AC power. Order one per controlled pump.



### 3120-012 - Fluid Solenoid Valve

**Fluid Solenoids:** Stops the flow of fluids instantly at the preset quantity. Pressure rating 1500 psi; port thread size 1/2" NPT(F); 24 Volt AC power. Order one per dispensing reel/handle.



### 3120-009 - Ready Light

**Ready Light:** Alerts operator when the fluid has been enabled for dispensing. For 24 volt AC operation. Order one per dispensing station.



## Pump Sentinel

- Model 3110-009
- Allows for controlled dispensing of fluids
- Capable of preventing fluid theft by using switches to enable or disable up to six pumps
- Prevents fluid spills during non-working hours by using a built in timer to turn off air supply to all pumps at a predetermined time each day
- Ideally suited to improve existing FIC systems that have been installed without the protection of air solenoids
- Small console footprint: 6.5" L x 5" W x 3" H



## High-Flow Non-Metered Control Handles

Model Standard	Model Locking	Extension
3320-022	3320-030	Rigid, LDB Plus
3320-023	3320-031	Flex, LDB Plus
3320-024	3320-032	Gear Oil, LDB Plus
3320-025	3320-033	Flex 90, LDB Plus
3320-026	3320-034	Rigid, HF Semi-auto
3320-027	3320-035	Flex, HF Semi-auto
3320-028	3320-036	Gear Oil, HF Semi-auto
3320-029	3320-037	Flex 90, HF Semi-auto



# Tank Management

**4520-010 Tank Guardian.** Monitors the fluid level of tanks by detecting the static pressure generated by the fluid height. A tube is inserted in the tank and the fluid level or volume is displayed on the Tank Guardian screen. Displays in gallons or liters.



**4520-011 Tank Guardian Software.** Multi Tank1-4, -8, and -12. This software interface enables the user to connect up to 12 Tank Guardian level gauges. It saves historical tank level records according to time interval, level change, and volume change. With the recorded data, a diagram can be displayed showing the historical tank level records. High and low level prompts are included in the display.

Contact your local Balcrank distributor for other lubrication equipment solutions:

