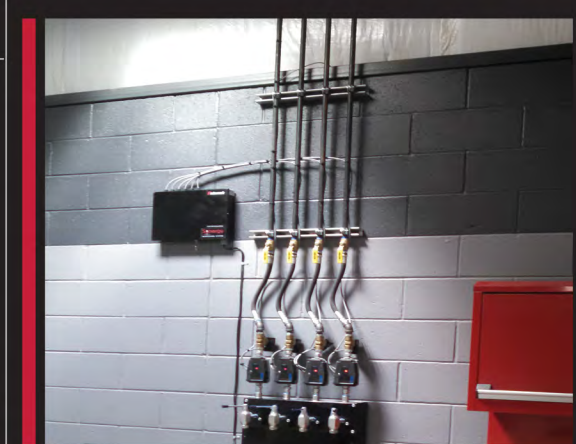
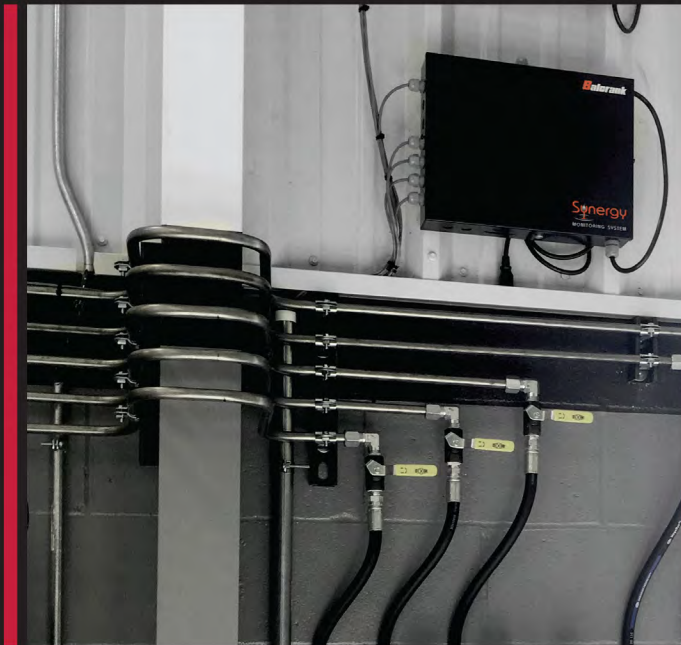
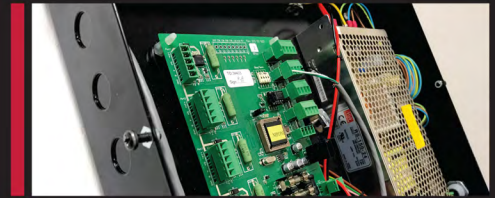


Balcrank

Fluid Dispensing Systems

Automotive | Commercial | Industrial

Fluid Management Solutions



Fluid Inventory Control Product Selection Matrix



FEATURES	DIRECTOR JR.	FUSION 2.4 CCS	FUSION 2.4 DCS	SYNERGY
Max. number of dispense points	10	30	250	255
Max. number of fluids	1	8	16	Unlimited
Fluid names		✓	✓	✓
Number of keypads	1	1	36	Unlimited
Job number validation			✓	✓
Job numbers		✓	✓	✓
Integration to DMS system		✓	✓	✓
Simultaneous keypad operation			✓	✓
Simultaneous dispense		✓	✓	✓
Max. number of tanks		8	16	Unlimited
Calculated tank declining balance		✓	✓	✓
Real-time tank monitoring				✓
Tank report over e-mail			✓	✓
PIN code validation		✓	✓	✓
Operation PIN codes		✓	✓	✓
Max. number of PINs		50	250	Unlimited
Extensive user permission configuration				✓
Preset volumes	✓	✓	✓	✓
Hose Reel ID	✓	✓	✓	✓
Operator names		✓	✓	✓
Dispense from keypads	✓	✓	✓	✓
Dispense from PC				✓
Client / Network installer			✓	✓
Max. number of transaction history		1,200	Unlimited	Unlimited
Print reports		✓	✓	✓
Print receipt		✓		Local / Network
Custom reports			✓	✓
Bar Code / Card reader / Dallas Key				✓
Wireless		✓	✓	

Fluid Inventory Control Director Jr. 24 V DC

Director Jr. manages 1 fluid for up to 10 dispense points. Simple, easy to install and use, the Director Jr. has been in use since 1987. Typical customers include small garages, dealerships, and small equipment service.



Features

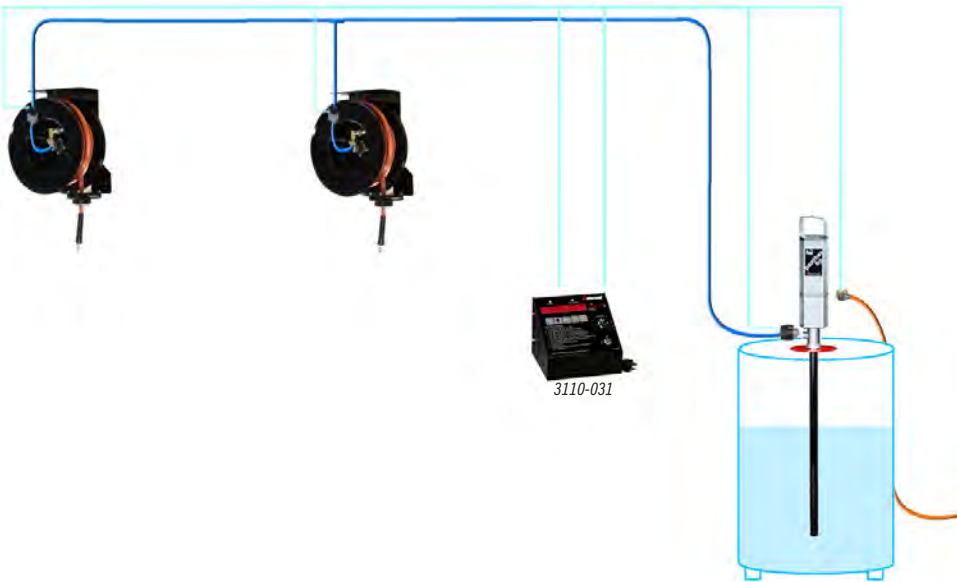
- The Director Jr. is a console designed to monitor and control fluid dispenses in a workshop from a single central location
 - The Director Jr. will also manage a solenoid valve to control the air powering the pump.
 - 1 fluid to 10 stations.
 - Fluid measurement in pints, quarts, gallons, or liters.
 - Service fluids: motor oils, synthetics, ATF, gear oils, and Anti-freeze (Glycol).
 - Totalizing feature for ease of fluid inventory record-keeping.
 - Large LED information display.
- Contact Balcrank customer service for V AC units.**

COMPONENT TECHNICAL DATA

Function	Monitor and control fluid dispense
Requirements & Limitations	non-shielded 18 gauge wire up to 400' 16 gauge wire 400'-600'
Power	Input -110 VAC - Output - 24 V DC

MODEL AVAILABLE

3110-031	Director Jr Console V DC
-----------------	--------------------------



BOMs

1 - 3110-031 - Director Jr. Console V DC

2 - 3120-032 - Fluid Solenoid

1 - 3120-033 - Air Solenoid

1 - 3120-114 - Pulse Meter

Balcrank recommends the use of Y-Strainers for use with all FIC systems

Fluid Inventory Control

Director Jr. 24 V DC Accessories

PULSE METERS			
Converts fluid movement into a pulse count signal. Order one per pump: units of measure in quarts, liters, pints, or gallons			
MODEL	DESCRIPTION	COMPONENT TECHNICAL DATA	
	3120-114 Pulse meter. Units of measure: Quarts, liters, pints and gallons	Flow: 0.25 - 8 gpm Max working pressure: 1,500 psi (100 bar) Connection: 1/2" NPT(F/F) and flange Accuracy: +/-0.5% Pulses: 1241 PPG / 328 PPL / 310 PPQ Service Bulletin: SB3099	
AIR SOLENOID VALVE			
Air valve provides for the remote control of dispensing pumps from the fluid control console. Order one per controlled pump			
	3120-033 Air Solenoid Valve	Air Solenoid Provides for the remote shutdown of dispensing pumps from the fluid control console. Order one per controlled pump. Pressure: 200 PSI (12 bar) Connection: 3/8" NPT (F/F) Power: 24 V DC	
FLUID SOLENOID VALVES			
Fluid valve opens fluid line to the dispensing station when activated by the Director Jr. Order one per dispensing reel/handle.			
	3120-217 Fluid Solenoid Valve	Fluid Solenoid provides for the remote shutdown of dispensing pumps from the fluid control console. Order one per controlled pump. Pressure: 200 PSI (12 bar) Connection: 1/2" NPT (F/F) Power: 24 V DC	
	3120-218 Fluid Solenoid Valve	Fluid Solenoid provides for the remote shutdown of dispensing pumps from the fluid control console. Order one per controlled pump. Pressure: 200 PSI (12 bar) Connection: 3/4" NPT (F/F) Power: 24 V DC	
Y-STRAINER			
For filtering debris after the pump			
	3120-211 1/2" NPT(F)	Max working pressure: 580 psi (40 bar) Material: Ductile Iron Includes: Plug 40 mesh	
	3120-212 3/4" NPT(F)		
	3120-213 1" NPT(F)		
READY LIGHT			
Alerts technician when fluid batch is available for dispensing.			
	3120-031 Ready Light Alerts technician when fluid batch is available for dispensing.		

Fluid Inventory Control fusion 2.4

fusion 2.4 Wireless Fluid Inventory Control and Management Systems

fusion 2.4 will track every drop of fluid in your facility, from the bulk tanks, hose reels to portable equipment. No dispense will be delivered without authorization.



Today's Challenges

- Multiple dispense points.
- The need for simultaneous dispensing
- Variety of fluids including oil, ATF, diesel fuel, coolant.
- Security.
- Inventory reconciliation.
- Networking.
- PC Interface.

The Solution

The fusion 2.4 Central Control System

(CCS) provides precise metering and dispensing of any fluid for Mobile Lube, Quick Lube, Tire centers, Car Dealerships, and Transmission Center applications.

- ✓ Controls up to 30 dispense points.
- ✓ Manages up to 8 fluids.
- ✓ Secures operating levels with up to 49 user IDs.
- ✓ Create paper ticket after every completed work order - no lost billings.
- ✓ Manage simultaneous dispense locations - all dispenses are recorded.
- ✓ fusion 2.4 can manage tank levels; level is reported after each dispense.

- ✓ Attach dispense handle to the hose; plug in and configure the keypad(s) - your ready to operate! It's that easy!
- ✓ Totally wireless, communicates directly between keypad and dispense valves - easily fits into any facility.
- ✓ Multi-channel operation seeks open frequency - minimizes interference from outside sources.

The Solution

The fusion 2.4 Distributed Control System

(DCS) provides precise metering and dispensing of any compatible fluid for Maintenance Facilities, Large Dealerships, Large Fleets, and Industrial Plants.

- ✓ Controls up to 250 outlets.
- ✓ Manages up to 16 fluids.
- ✓ Tracks up to 24 control handles per single keypad.
- ✓ Secures operating levels with up to 250 user IDs.
- ✓ Manage simultaneous dispense locations - all dispenses are recorded.
- ✓ Unlimited work order stacking allows

- mechanic to select pre-loaded work orders - turn vehicles faster per day.
- ✓ Create work order history & reports by product, vehicle, customer, WO or technician.
- ✓ fusion 2.4 can match your process: pre-authorized work order or technician dispense - manage and record all dispenses.
- ✓ Assign special work order number for dedicated oil change bays allowing monitored after-hours fluid dispensing.
- ✓ fusion 2.4 mathematically manages fluid levels.
- ✓ Mount up to 36 wireless zone keypads directly in the bays - maximizes technician productivity.
- ✓ Totally wireless, communicates directly between keypads and dispense valves - easily fits into any facility.
- ✓ Multi-channel operation seeks open frequency - Minimizes interference from outside sources.

fusion 2.4 installation must be performed by a Balcrank fusion 2.4 Certified Distributor. Contact your Balcrank representative for additional information.

Fluid Inventory Control fusion 2.4 (CCS)



Features

- Wirelessly controls and manages up to 8 fluids and 30 dispense locations.
- Easy/fast entry of authorized PIN codes and job information on a Central Dispense Keypad.
- Easy dispense and fast completion of work order.
- Built in ticket printer produces a detailed written record for each work order dispensed.
- Allows for future expansion of fluids and/or dispense locations.
- Wireless fusion 2.4 control handles are the building blocks of both the fusion 2.4 CCS & DCS systems.

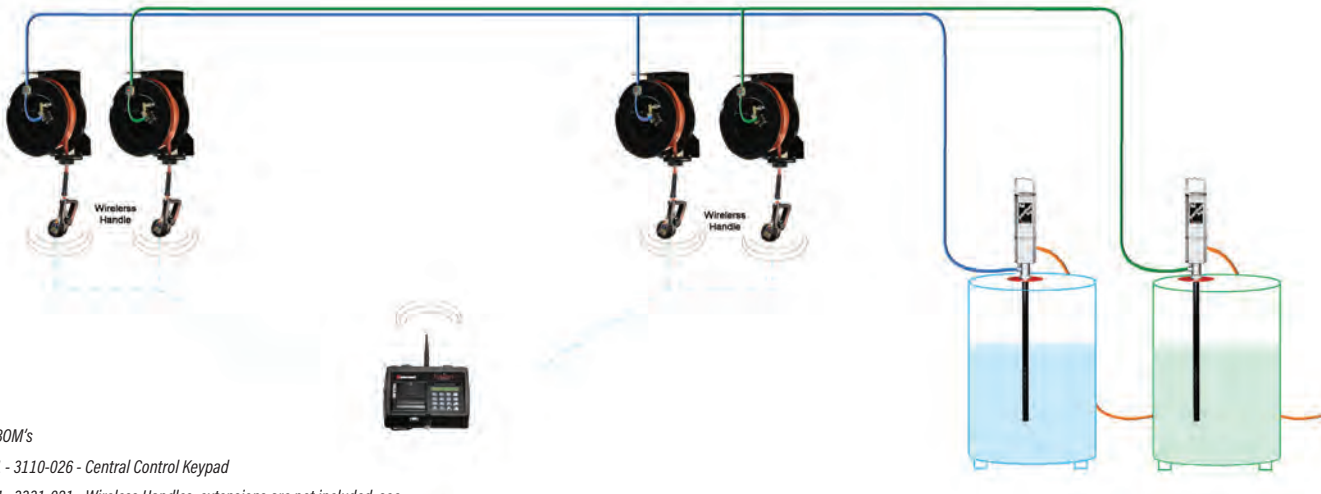
COMPONENT TECHNICAL DATA

Function	Wirelessly monitor and control fluid dispense
Requirements & Limitations	2-way 2.4 GHz radio communication Tank measurements are; quarts, liters, Pints, and gallons Operating Temp.: 14 °F to 140 °F (-10 °C to 60 °C) (Indoor usage only) fusion 2.4 systems may not work with cordless phones, or other electronic devices operating within the same frequency range
Power	Input-110 VAC, 50/60 Hz

MODEL AVAILABLE

3110-026	Central Control Keypad
-----------------	------------------------

Example of Mid-Range fusion 2.4 CCS System



BOM's

1 - 3110-026 - Central Control Keypad

4 - 3331-021 - Wireless Handles, extensions are not included, see page 3 to select the appropriate extension

Accessories may include:

3120-089 - 30 ft Extension Antenna

3120-090 - Antenna Splitter

Fluid Inventory Control fusion 2.4 (DCS)



Features

- Wirelessly controls and manages up to 16 fluids, 250 dispense locations, and 36 keypads.
- Add fluid and/or dispense capacity at any time.
- Easy/fast entry of authorized PIN codes and job information on a Wireless Dispense Keypad.
- Easy dispense and fast completion of work order.
- Generate reports by product, by vehicle, by work order, or by technician.
- Monitor inventory levels from your PC.
- Operator and manager security levels.

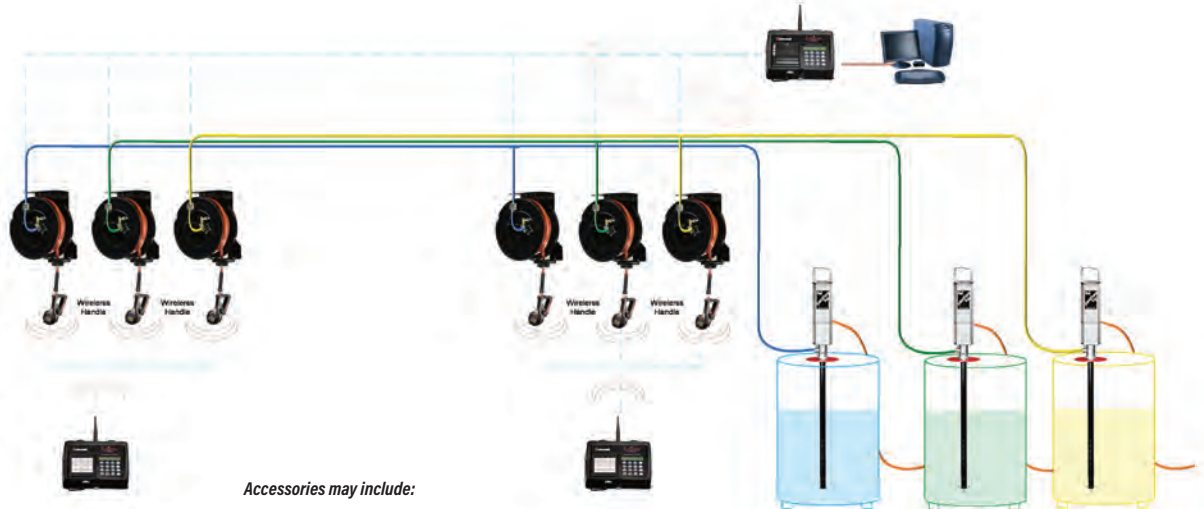
COMPONENT TECHNICAL DATA

Function	Wirelessly monitor and control fluid dispense
Requirements & Limitations	2-way 2.4 Ghz radio communication Tank measurements are; quarts, liters, pints, and gallons Operating Temp.: 14 °F to 140 °F (-10 °C to 60 °C) (Indoor usage only) fusion 2.4 systems may not work with cordless phones, or other electronic devices operating within the same frequency range
Power	Input-110 VAC, 50/60 Hz

MODELS AVAILABLE

3110-027	Master Keypad
3110-028	Dispense Keypad
3110-029	Dispense Keypad w/Built in Printer

Example of Mid-Range fusion 2.4 DCS System



BOM's

- 1 - 3110-027 - Master Keypad
- 2 - 3110-028 - Dispense Keypads
- 6 - 3331-021 - Wireless Handles, extensions are not included, see page 3 to select the appropriate extension

Accessories may include:

- 3120-089 - 30 ft. Extension Antenna
- 3120-090 - Antenna Splitter
- 3120-058 - 25' RS-232 cable
- 3120-059 - 50' RS-232 cable
- 3120-060 - 100' RS-232 cable

Fluid Inventory Control fusion 2.4 RF Handles



Features

- The fusion 2.4 RF Control Handle is equipped with RF (radio frequency) communications to communicate with a fluid management system keypad to get authorization and dispense information.
- The meter can also be run as a standard Electronic Preset Meter (EPM). This is intended for start-up purposes or when the fluid management system is not in use.


MODELS AVAILABLE

3331-021	Handle for oil and anti-freeze
3332-083	Rigid Hi-Flow w/Semi-Auto Lock Nozzle
3332-084	Flex Hi-Flow w/Semi-Auto Lock Nozzle

COMPONENT TECHNICAL DATA

Function	To dispense fluid
Requirements & Limitations	Min./Max. Flow 5-10 gal/min (19-38 l/min)
	Max. Operating Pressure 1,000 psi (70 bar)
	Meter Accuracy +/- 0.5% - oil +/- 1.5% Anti-freeze (Glycol)
	LCD Display 5 char; 0.40"H x 0.20"W
	Units of Measurement Quarts, Pints, Gallons, and Liters
	Inlet/Outlet 1/2" NPT
	fusion 2.4 control handles are compatible with Oil, ATF, Anti-freeze, and diesel fuel.
Power	4 - "AA" batteries

fusion 2.4 RF Accessories

REMOTE ANTENNA		Y-STRAINER	
Allows for remote mounting of the antenna		For filtering debris after the pump	
3120-089	30' remote antenna	3120-211	1/2" NPT(F)
Allows both the included antenna and a remote antenna to be connected to a single key pad	3120-090	3120-212	3/4" NPT(F)
		3120-213	1" NPT(F)
3120-090	Antenna splitter	Max. pressure: 580 psi (40 bar) Material: Ductile Iron Includes: Plug All strainers have 40 mesh.	
RS 232 Serial Cable - 9 pin			
3120-059	RS 232 Cable 50'		
3120-060	RS 232 Cable 100'		

Fluid Inventory Control Synergy

Synergy Fluid Monitoring Systems

Today, the needs of our customers are more complex, the fluids are many, and the challenges managing and accurately monitoring these fluids are difficult. Wireless has its limitations, communication problems, and risks with all electronic controls mounted in the handle. Synergy brings you real-time information with seamless communication without interruption.



Today's Challenges

- Multiple dispense points.
- The need for simultaneous dispensing.
- Variety of fluids including oil, ATF, grease, DEF, diesel fuel, windshield wash solvent and coolant.
- Tank monitoring of both fresh and used oil and coolant.
- PC and printer interface.
- Security
- DMS interface, optional
- Networking.
- Inventory Reconciliation.

The Solution

Synergy offers ease-of-use combined with the high performance you have come to expect from Balcrank. The Synergy provides precise metering and dispensing of compatible fluids for automotive, commercial, and industrial applications.

- ✓ Controls up to 255 outlets.
- ✓ Number of fluids are unlimited.
- ✓ Number of keypads are unlimited.
- ✓ Job number validation are unlimited.
- ✓ Manage simultaneous dispense locations all dispenses are recorded.

Flexibility and Performance

Synergy is simple to use and offers outstanding performance. It is very easy to customize to your unique needs for control of oil, anti-freeze (Glycol) and more. With Synergy, you will have full control of all fluid consumption for vehicle service and industrial applications.

Intelligent Modules with Easy Integration

The system uses intelligent modules, which offer a variety of adaptations in the software. Synergy can be installed in both existing and new facilities and with optional integration in financial DMS applications. The system; provides precise metering and dispensing of fluids and is multilingual; English, Spanish, and French.

Remote Access

The keypads are designed to be located in strategic places allowing remote entry of PIN ID, job or work order number, and amount of fluid to be dispensed at any given location. A minimum of 1 keypad is required to operate a system, but there is no limit for the total number of keypads in the system. Any dispense can be initiated from any keypad.

System Control

The Multi-Point Dispense Module (MPDM) controls the amount of fluid ordered from any keypad or PC in the entire system. One module controls up to 4 outlets and offers a keyed manual override. Every outlet port can be given unique functions:

- Volume.
- Time-out.
- Job number.
- Group access.
- Pulse per unit.
- Minimum/maximum volume.

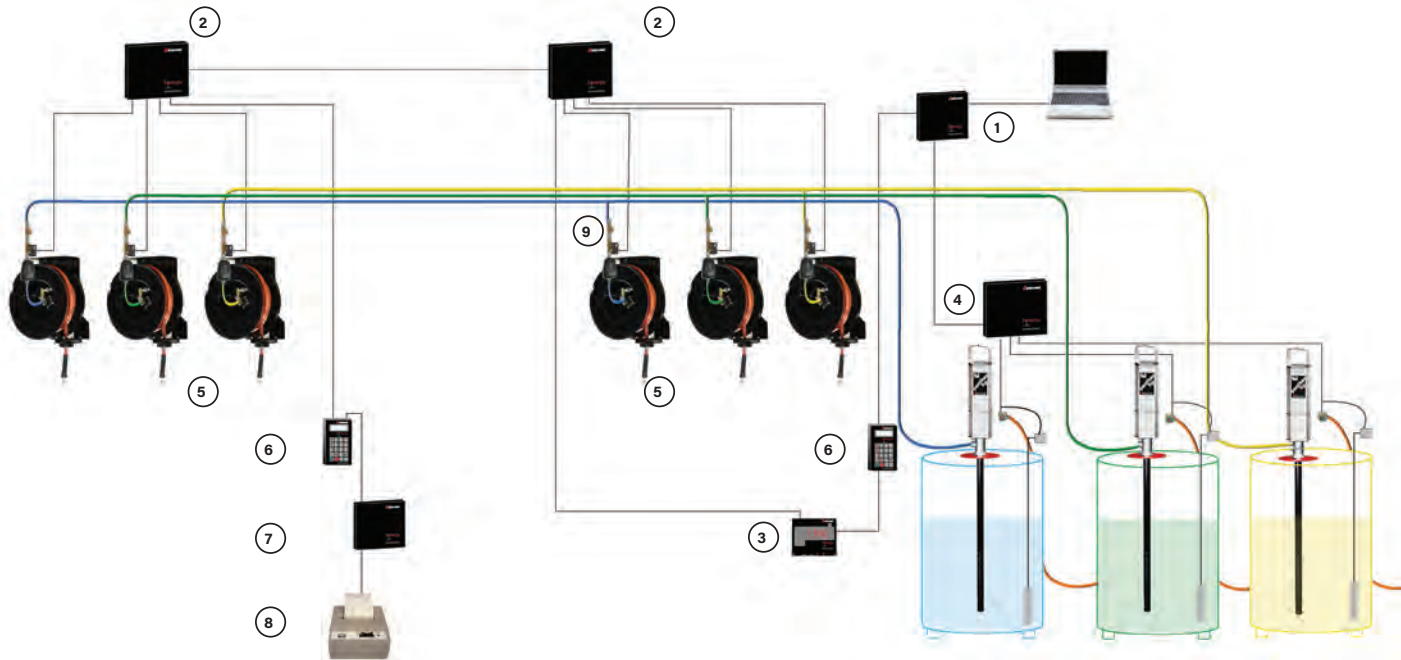
Industrial Batch Features

Synergy is the solution for increasing productivity and improving quality. Offering a number of batch dispensing solutions: it's easy to design a system to meet specific demands. Up to 7 volumes can be pre-programmed and 4 volumes can be dispensed simultaneously, with or without a PC.

Synergy installation must be performed by a Balcrank Synergy Certified Distributor. Contact your Balcrank representative for additional information.

Fluid Inventory Control Synergy

Example of Mid-Range Synergy System



BOM's

- ① 3110-019 - PC Interface Module
- ② 3110-017 - Multi-Point Dispense Module (MPDM)
- ③ 3120-068 - LED Display
- ④ 3110-020 - Tank Control Module
- ⑤ Hose Reels x 6 units
- ⑥ 3110-016 - Standard Keypads
- ⑦ 3110-018 - Printer Module
- ⑧ 3120-069 - Ticket Printer
- ⑨ 3120-033 - Air Solenoids x 3 units
Pulse Meter/Solenoid Valve Kits x 6 units - select the meter to match the fluid type.
See page 13 for meter/valve kits.

Fluid Inventory Control Synergy Components

Multi Point Dispense Module, Keypad and LED Display



Multi Point Dispense Module

Keypad

LED Display

MULTI POINT DISPENSE MODULE TECHNICAL DATA

Function	Module controls 4 dispense points/solenoids
Requirements & Limitations	4 outlets/dispense points Limit of 30' max. distance per dispense point from MPDM to meter valve AC Power cord (not included), see part 3130-001
Power	Input-110 VAC, output - 24 V DC

KEYPAD TECHNICAL DATA

Function	Module allows remote entry of PIN, job number, qty, etc.
Requirements & Limitations	Minimum 1 keypad required to operate a remote system No limit for number of keypads in the system
Power	Input - 24 V DC, output - 24 V DC

LED DISPLAY TECHNICAL DATA

Function	Displays active dispense point & time
Requirements & Limitations	Accommodates a clock module for a non-PC system
Power	Input - 24 V DC, Output - 24 V DC

Features

Multi-Point Dispense Module

- The Multi-Point Dispense Module handles metering and fluid solenoid control from any keypad or PC in the entire system.
- One module controls up to 4 reel dispense points and offers a keyed manual override.
- Every outlet port can be given unique functions: Volume, time out, job number, group access, Pulse Per Unit, display information, min./max. volume.

Keypad

- The standard keypads are designed to be located in strategic locations to allow remote entry of reel selection, PIN, job number, etc.
- Can be equipped with optional Serial Port Kit for use with an external reader.
- No limit for number of keypads in the system.
- Any reel dispense points can be opened from any keypad.

LED Display

- Large display, easy to see from long distances.
- The active reel dispense points is shown in the lower left corner.
- When equipped with a clock module or connected with a PC LED Display unit shows the current time when the system is not in use.
- Displays the active dispense volume
- Can display tank volume when used in a system with a tank control module and an analog sensor.

NOTE: If the LED Display unit is used to display tank volume, it cannot be used to display dispenses, and can only display the volume of a single tank.

MODELS AVAILABLE

3110-017	Multi-Point Dispense Module
3130-001	AC Power Cord
3110-016	Standard Keypad, 6' 3 Prong Plus
3110-030	Keypad with Serial Port
3120-068	LED Display

Fluid Inventory Control Synergy Components

PC Interface Module and Printer Module



Printer Module

Features

PC Interface Module

- Interfaces Synergy system to the PC
- Includes basic software:
- Allowing graphic visualization of the Synergy system components.
- Export system data to a simple text file.
- Synchronization of the system time with the PC
- Enhance system capabilities with Synergy Professional software, see page 14 for software upgrade, sold separately.
- Operator interface, includes powerful database manager with professional software, page 14.

Printer Module

- Interfaces FIC system to the optional ticket printer.
- Internal database stores user, PIN, and job information, when no PC is used.
- Transaction details printed on the optional ticket printer.
- Can also be used in a PC system for job tickets anywhere in a system layout.

PC INTERFACE MODULE TECHNICAL DATA

Function	Allows PC Interface
Requirements & Limitations	<p>PC Requirements:</p> <ul style="list-style-type: none"> - Runs under Windows 7 / 2000 / XP / Vista / Windows 8, 8.1, 10 - Intel Pentium 2-333Mhz 128Mb RAM - Must have free compatible 9-pin serial port. <p>Comes with Basic Software:</p> <ul style="list-style-type: none"> - Graphically view system - Set system time, update tank levels - Simple data export
Power	Input - 24 V DC, output - 24 V DC

PRINTER MODULE TECHNICAL DATA

Function	Controls printability
Requirements & Limitations	<p>Max. 912 transactions 32 users 8 tanks</p> <p>Accommodates a clock module for a non-PC system The non-PC system requires the Printer Module to create printouts of all transactions to ticket printer (3120-069)</p>
Power	Input - 24 V DC, Output - 24 V DC

MODELS AVAILABLE

3110-019	PC Interface Module
3110-018	Printer Module

Fluid Inventory Control Synergy Components

Tank Surveillance Module and Tank Control Module



Tank Surveillance Module



Tank Control Module

TECHNICAL DATA

	TANK SURVEILLANCE MODULE	TANK CONTROL MODULE
Function	Controls tank monitoring with LED status lights	Controls tank monitoring
Requirements & Limitations	4 tanks per module Can be used as a stand alone, in a non-PC based system, or in a PC based system	4 tanks per module Can only be used in the PC based system
Power	Input - 110 VAC, Output - 24 V DC	Input - 110 VA C, Output - 24 V DC

Features

Tank Surveillance Module

- The Tank Surveillance Module is used to monitor up to 4 fresh and/or waste oil tanks per module using either high/low level sensors or analog probes. Control pumps - automatic start and stop.
- Controls up to 4 solenoids (air or fluid) and can be used for either standalone tank monitoring or integrated with a PC based system.
- Equipped with key switch for normal operation, emergency override and On/Off functions.
- Green, red, & yellow LED's on the front cover provide current tank status at a glance.
- Used Oil - warning lights indicate ready, high level, and full.
- Fresh oil - warning lights indicate ready, low level, and empty.

Tank Control Module

- The Tank Control Module is used to monitor up to 4 fresh and/or waste oil tanks per module using either high/low level sensors or analog probes. Control pumps - automatic start and stop.
- Controls air solenoid valves.
- Equipped with key switch for normal operation, emergency override and On/Off functions.
- Controls waste pump/solenoid valves providing high level warning for Used Oil or low level warning and reorder point for fresh oil on PC.



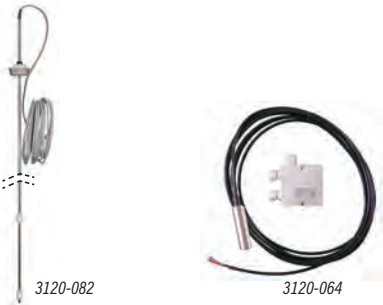

MODELS AVAILABLE

3110-021	Tank Surveillance Module
3110-020	Tank Control Module

Fluid Inventory Control Synergy Components

	MODEL	DESCRIPTION	COMPONENT TECHNICAL DATA
	METER/VALVE KITS		
	Solenoid Valve Kits - High precision meter modules include pulse meter, and solenoid valve. Balcrank recommends the use of a Y-Strainer on the dispense side of the pump, see page. 88. Order one per dispense point for use with Synergy		
	3120-117	Oil Anti-freeze (Glycol)	Pressure: 1450 psi (100 bar) Connection: 1/2" NPT(M/M) Power: 24 V DC
	3120-074	Grease	Pressure: 7250 psi (500 bar) Connection: In: 1/4" NPT(M) Out: 1/4" NPT(M) Power: 24 V DC
	3120-075	Diesel	Pressure: 145 psi (10 bar) Connection: 3/4" NPT(M/M) Power: 24 V DC
	3120-077	Windshield Washer Fluid	Pressure: 725 psi (50 bar) Material: 1/2" NPT(M/M) Power: 24 V DC
	3120-078	DEF	Pressure: 725 psi (50 bar) Material: 1/2" NPT(M/M) Power: 24 V DC
	Y-STRAINER - 580 PSI (40 BAR) ALL STRAINERS HAVE 40 MESH		
	3120-211	1/2" NPT(F)	
	3120-212	3/4" NPT(F)	
	3120-213	1" NPT(F)	
FIC ACCESSORIES Bar code, Card, and Dallas Key Reader require a Serial Port Kit			
	3120-204	Clock Module for LED or Printer Module	
	3120-205	Serial Port Kit	
	3120-208	Bar Code Reader + Serial Port Kit	
	3120-209	Card Reader + Serial Port Kit	
	3120-210	Dallas Key Reader + Serial Port Kit	

Fluid Inventory Control Synergy Components

	MODEL	DESCRIPTION	COMPONENT TECHNICAL DATA
	PROGRAMS & APPLICATIONS		
	3120-072	Professional Software Full-featured PC database. Easy system configuration Variety of standard & customized reports	
	3120-108	Client Set-up. Additional server/client control from multiple PCs	
	3120-070	Tank Alerts via E-mail	
	3110-023	DB Dock Service. Synchronize mobile database with main database	
	COMMUNICATION & CONTROL		
	3128-050	Communication Cable 50 ft.	
	3128-100	Communication Cable 100 ft.	
	3128-150	Communication Cable 150 ft.	
	3128-250	Communication Cable 250 ft.	
	3129-050	Control Cable 50 ft.	
	3129-100	Control Cable 100 ft.	
	3129-250	Control Cable 250 ft.	
	TANK SENSORS		
	Tank sensors (switches provide low level/high level responses, depending on model. For use with Tank Control Module 3110-020 and Tank Surveillance Module 3110-021		
	3120-079	Level Sensor, Switch, Oil. Low level stop	
	3120-080	Level Sensor, Switch, Other Fluids. Low level stop	
	3120-081	2 Level Sensor, Switch, Oil. Low level alarm and stop	
	3120-082	2 Level Sensor, Switch, Other Fluids. Low level alarm and stop	
	3120-083	2 Level Sensor, Switch, Waste Oil. High level alarm and stop	
	3120-084	Level Sensor, Analog, Oil. Provides low level/high level actual volume	
	TICKET PRINTER		
	3120-069	Optional ticket printer for use with Printer Module 3110-018	

Fluid Inventory Control Pump Sentinel & Tank Guardian



Features

Pump Sentinel

- Prevents theft by disabling up to six pumps.
- Safety shut-off at the end of the day; in-case of component failure resulting in leaks and spills.
- Master key needed to turn system on
- 6' cable to run to junction box
- Small Console footprint:
6.5" L x 5" W x 3" H.

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.

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. Tank Guardian can be used as a stand alone monitoring system or with any of Balcrank's FIC systems.

Tank Guardian level gauges 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.

PUMP SENTINEL TECHNICAL DATA

Function	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
Requirements & Limitations	No. 18 AWG wire is recommended for all runs less than 400 feet. For runs from 400 to 625 feet, use wire no. 16 AWG or larger. Normally the 24V DC wiring can be run around the overhead structure of the building without using conduit.
Power	120 VAC, 60/50 Hz, 50 Watts-output 24 V DC
Service Bulletin	SB3048

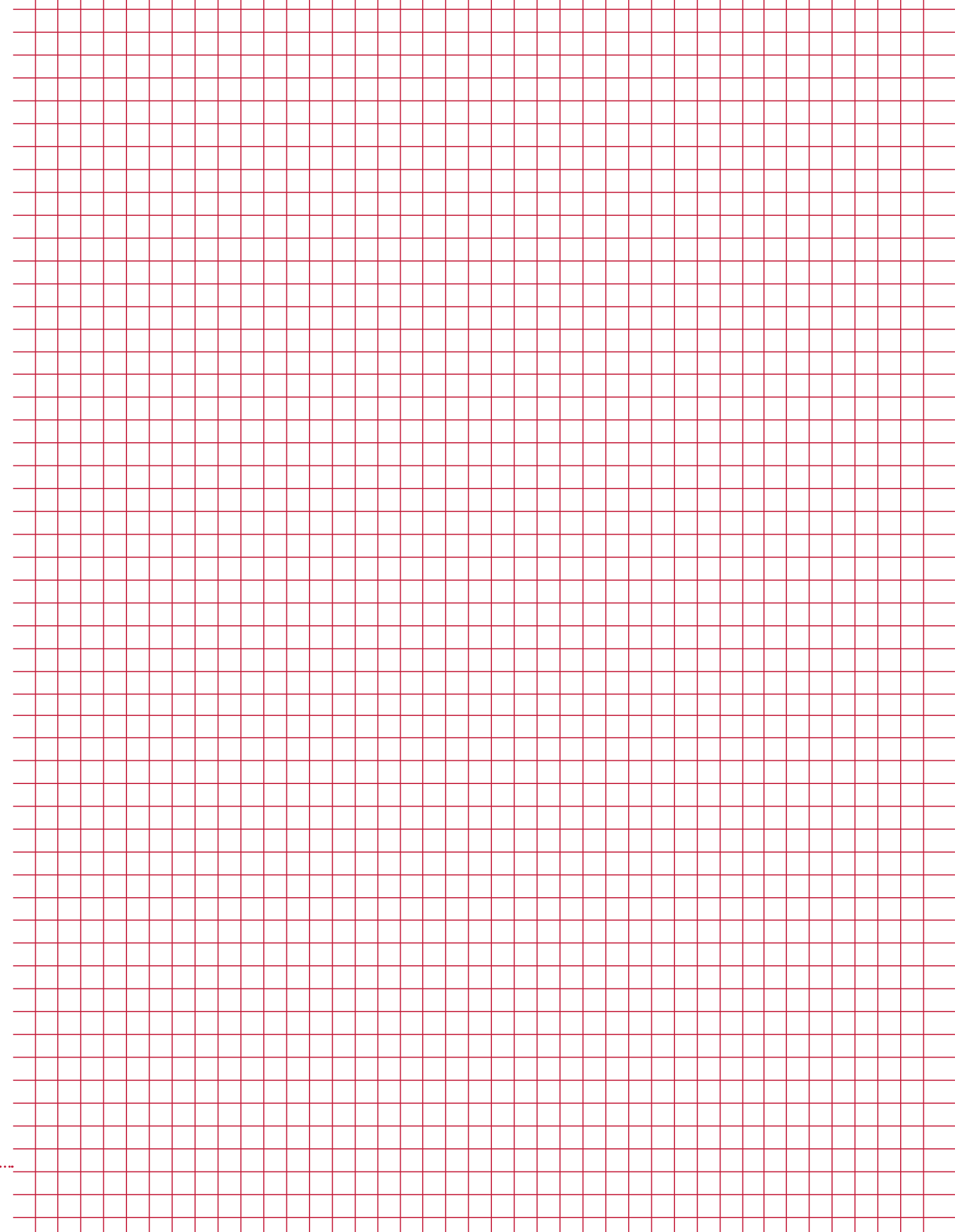
TANK GUARDIAN TECHNICAL DATA

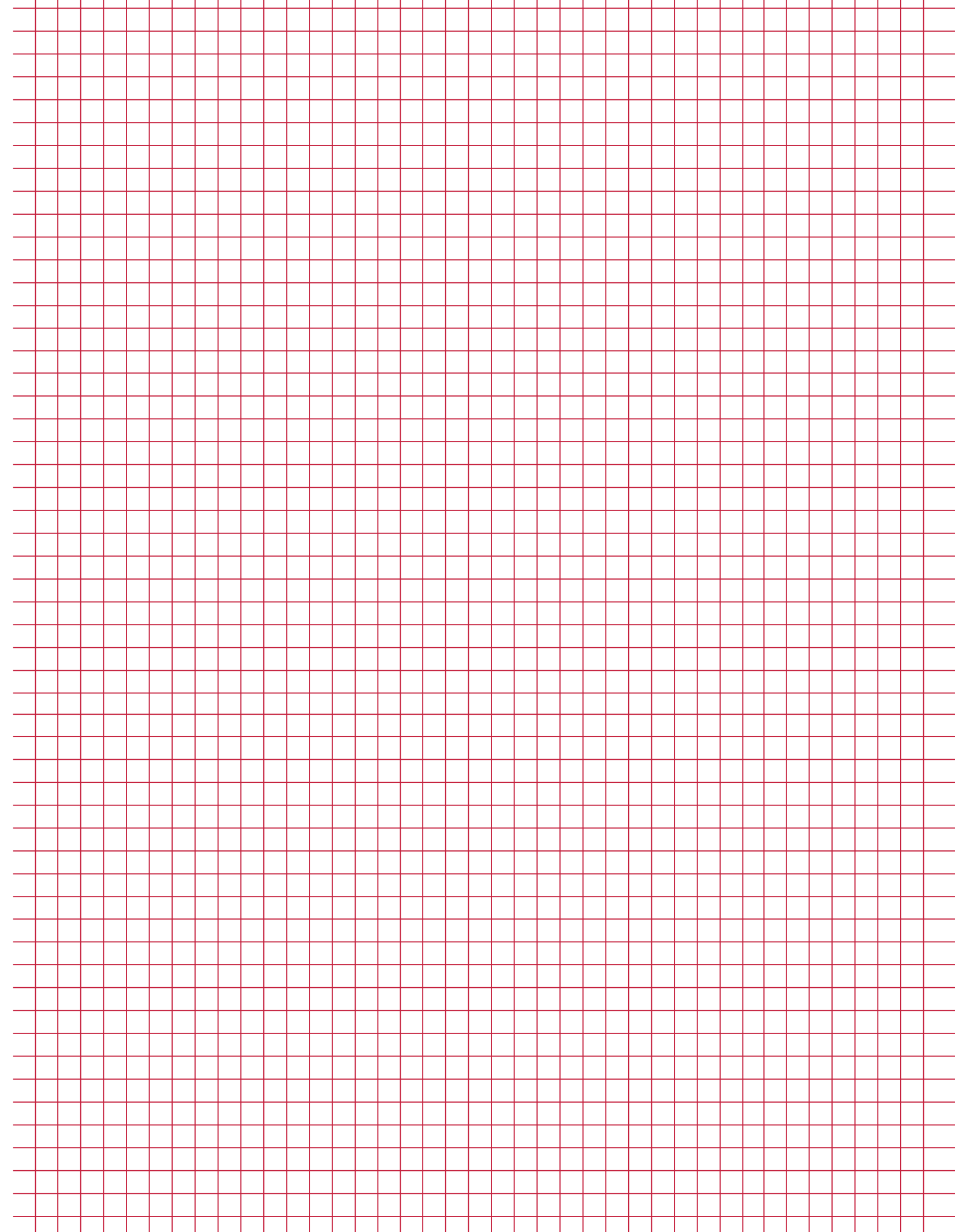
Function	Monitors the fluid level of tanks by detecting the static pressure generated by the fluid height.
Requirements & Limitations	Order one Tank Guardian per tank Tank Guardian Multi-tank software is required for 4 or 8 tanks
Power	110 VAC
Service Bulletin	SB3094

MODEL AVAILABLE

3110-009	Pump Sentinel Console
4520-010	Tank Guardian
4520-011	Tank Guardian Multi-tank software, 4 PC interface
4520-012	Tank Guardian Multi-tank software, 8 PC interface







Balcrank

Fluid Dispensing Systems

Balcrank Corporation

90 Monticello Road
Weaverville, NC 28787, USA
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