Balcrank

Fluid Inventory Control

Complete

Fluid Inventory

Management

Fluid Inventory Control

Product Selection Matrix

Features	Director Jr.	fusion 2.4 Central Controlled
Max. number of dispense points	10	30
Max. number of fluids	1	8
Fluid names		✔
Number of keypads	1	1
Job number validation		
Job numbers		✔
Integration to DMS system		
Simultaneous keypad operation		
Simultaneous dispense		✔
Max. number of tanks		8
Calculated tank declining balance		✔
Real-time tank monitoring		
Tank report over e-mail		
PIN code validation		✔
Operation PIN codes		✔
Max. number of PINs		49
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
Print reports		✔
Print receipt		✔
Custom reports		
Bar Code/ Card reader/Dallas Key		
Wireless		✔

product specifications are subject to change without prior notice

Features	fusion 2.4 Distributed Controlled	Synergy
Max. number of dispense points	250	255
Max. number of fluids	16	Unlimited
Fluid names	✓	✓
Number of keypads	36	Unlimited
Job number validation	✓	✓
Job numbers	✓	✓
Integration to DMS system		ADP*
Simultaneous keypad operation	✓	✓
Simultaneous dispense	✓	✓
Max. number of tanks	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	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	Unlimited	Unlimited
Print reports	✓	✓
Print receipt	Local/Network/Ticket Printer Optional	Local/Network/Ticket Printer Optional
Custom reports	✓	✓
Bar Code/ Card reader/Dallas Key		✓
Wireless	✓	

* Additional Dealer Management Systems (DMS) interfaces may be developed and/or developed. Contact Balcrank for additional information.

Director Jr.

Example of Mid-Range Director Jr. System
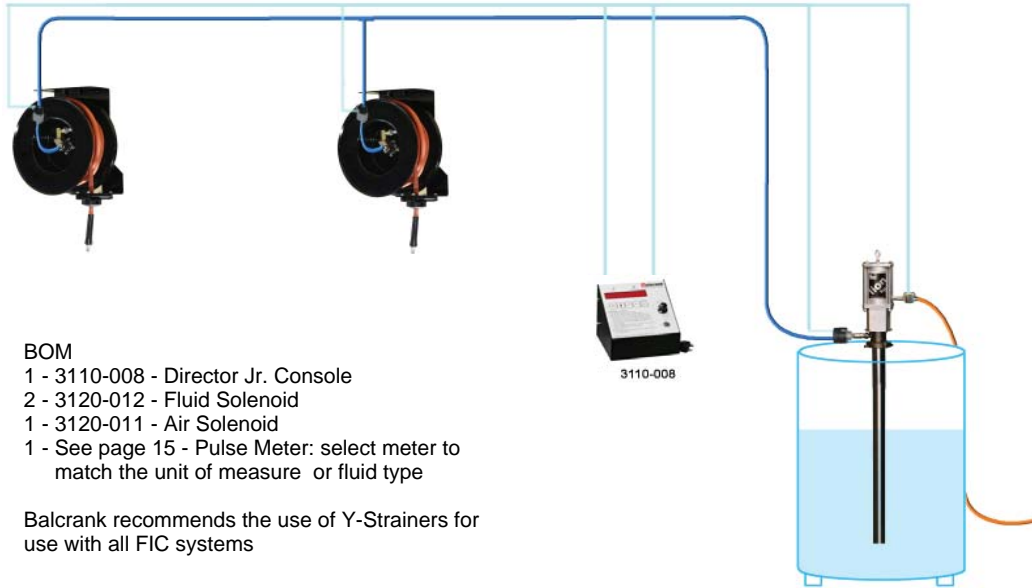
BOM
1 - 3110-008 - Director Jr. Console
2 - 3120-012 - Fluid Solenoid
1 - 3120-011 - Air Solenoid
1 - See page 15 - Pulse Meter: select meter to
    match the unit of measure or fluid type

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

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 keypad 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 oil, and Anti-freeze (Glycol) - verify meter wetted materials for use with anti-freeze.
- Totalizing feature for ease of fluid inventory record-keeping
- Large LED information display

MODEL AVAILABLE

3110-008	Director Jr. FIC Console

COMPONENT SPECIFICATIONS

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 VAC

SERVICE BULLETIN & ACCESSORIES

Service Bulletin	SB3045

product specifications are subject to change without prior notice

DIRECTOR JR.

Pulse Meters Converts fluid movement into a pulse count signal. Order one per pump: *select meter to match the unit of measure*

Model #	Description	Component Specifications	
3120-005	Liters	Flow	0.4 - 4 gal/m
3120-006	Pints	Pressure	1,000 psi (70 bar)
3120-007	Quarts	Connection	1/2" NPT(F/F)
3120-008	Gallons	Accuracy	+/- 0.65%
3120-016	Quarts, Anti-freeze (Glycol) - This model ONLY	Pulses	10 PPU
Service Bulletin	3003	Power	12, 24, 120 VAC

Solenoid Valves

Air Provides for the remote shutdown of dispensing pumps from the fluid control console. *Order one per controlled pump*

Model #	Description	Component Specifications	
		Pressure	200 psi (14 bar)
3120-011	Air Solenoid Valve	Connection	3/8" NPT(F/F)
		Power	24 VAC

Fluid Stops the flow of fluids instantly at the preset quantity. Order one per dispensing reel/handle.

Model #	Description	Component Specifications	
		Pressure	1,500 psi (103 bar)
3120-012	Fluid Solenoid Valve	Connection	1/2" NPT(F/F)
		Power	24 VAC

Y-Strainer For filtering debris - 1,000 psi (70 bar) - all strainers have 60 mesh element

Model #	Description	Component Specifications	
3120-051	1/2" NPT(F)	Pressure	1,000 psi (70 bar)
3120-010	3/4" NPT(F)	Material	Ductile Iron
3120-040	1" NPT(F)	Includes	Plug

Ready Light *Alerts technician when fluid batch is available for dispensing.*

Model #	Description
3120-031	Ready Light Alerts technician when fluid batch is available for dispensing.

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, windshield wash fluid, coolant
- Security
- Inventory reconciliation
- Networking
- PC Interface

The Solution The *fusion 2.4* Central Control System (CCS) provides precise metering and dispensing of any compatible fluid for Mobile Lube, Quick Lube, Tire Centers and Transmission Center applications.

- ✓ Controls up to 30 dispense points
- ✓ Manages up to 8 fluids
- ✓ Secures operating levels with up to 49 user ID's
- ✓ 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, configure system and plug-in the keypad
- ✓ 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) System provides precise metering and dispensing of any compatible fluid for Maintenance Facilities, Large Dealerships, Large Fleets, Industrial Plants.

- ✓ Controls up to 250 dispense points
- ✓ Manages up to 16 fluids
- ✓ Tracks up to 24 control handles per single keypad
- ✓ Secures operating levels with up to 250 user ID's
- ✓ 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, dispense point, work order, technician or date range
- ✓ *fusion 2.4* can match your process: pre-authorized work order or technician dispense - manage and record all dispenses
- ✓ *fusion 2.4* mathematically manages fluid levels
- ✓ Mount up to 36 wireless dispense 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 you Balcrank representative for additional information.

Example of Mid-Range *fusion 2.4* CCS System
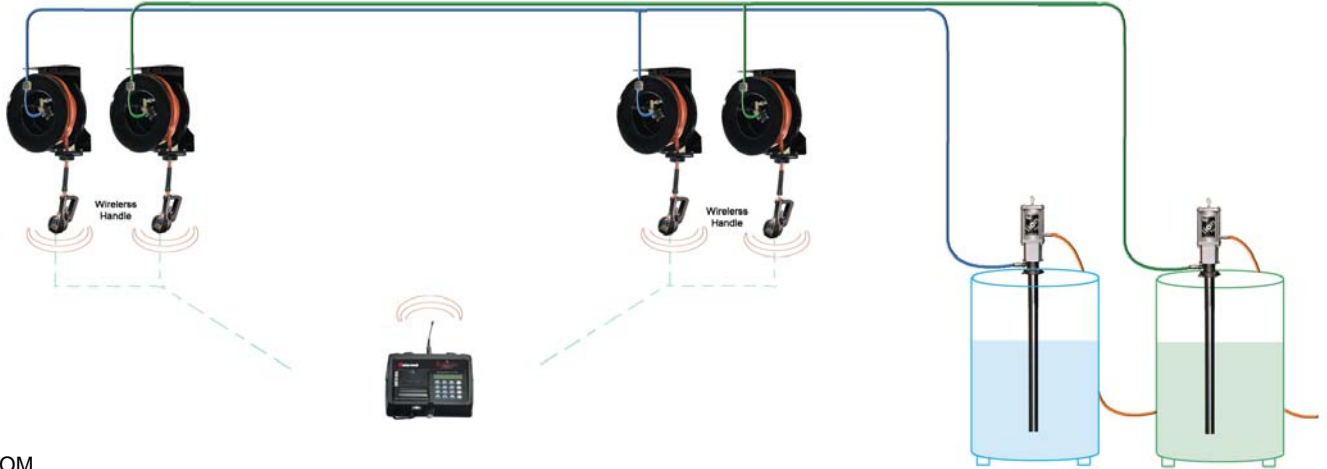
BOM
1 - 3110-026 - Central Control Keypad
4 - 3331-021 - Wireless Handles
> select the handle extension that best suit your needs

Accessories may include:
3120-089 - 30 ft. Extension Antenna
3120-090 - Antenna Splitter

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 Control 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

MODEL AVAILABLE

3110-026	Central Control Keypad

COMPONENT SPECIFICATIONS

Function	Wirelessly monitor and control fluid dispense
Requirements & Limitations	• 2-way 2.4 GHz frequency hopping spread spectrum • Tank measurements are; quarts, liters, Pints, and gallons • Operating Temp.:14°F - 140°F (-10°C - 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. • Maximum of 30 handles per keypad
Power	Input-110 VAC, 50/60 Hz

fusion 2.4 (DCS)

Example of Mid-Range *fusion 2.4* DCS System
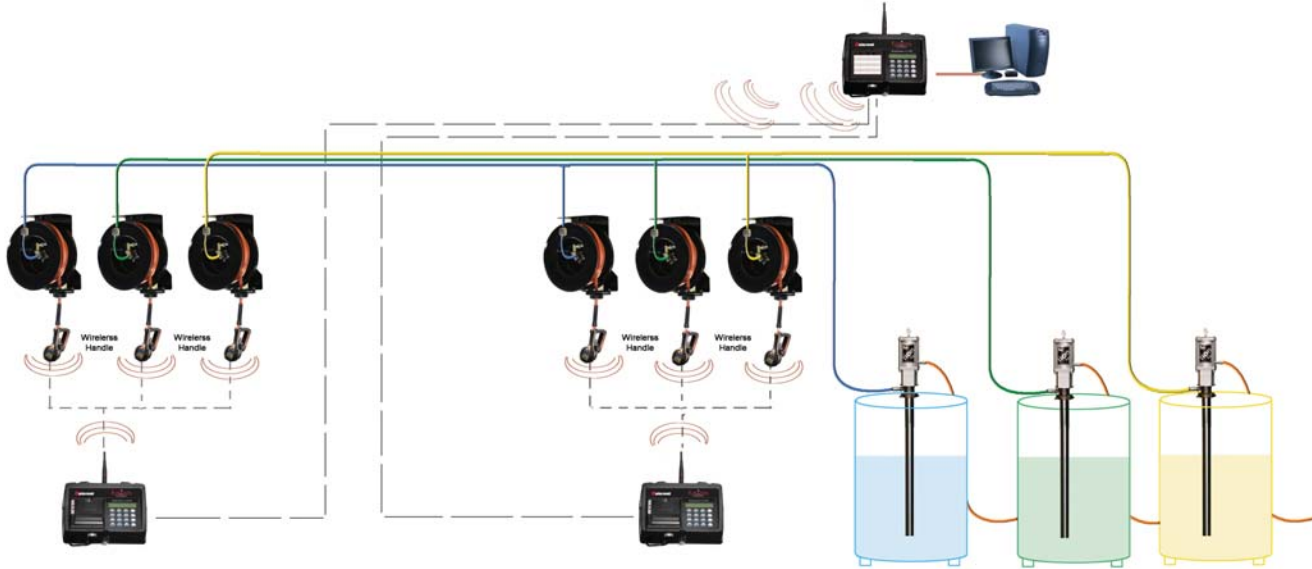
BOM
1 - 3110-027 - Master Keypad
2 - 3110-028 - Dispense Keypads
6 - 3331-021 - Wireless Handles
      select the handle extension that best suit your needs

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

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, dispense point, work order, technician or date range
- Monitor inventory levels from your PC
- Operator and Manager security levels

MODELS AVAILABLE

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

COMPONENT SPECIFICATIONS

Function	Wirelessly monitor and control fluid dispense
Requirements & Limitations	2-way 2.4 GHz frequency hopping spread spectrum - Tank measurements are; quarts, liters, Pints, and gallons - Operating Temp.:14-140°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. - Maximum of 24 control handles or dispense points per dispense keypad
Power	Input-110 VAC, 50/60 Hz

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.

COMPONENT SPECIFICATIONS

Function	Control and metering of a single dispense point
Requirements & Limitations	Min./Max. Flow 5-10 gal/m (19-38 l/m)
	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 Extension sold separately
	fusion 2.4 control handles are compatible with Oil, ATF, Anti-freeze, windshield washer fluid, and diesel fuel.
Power	4 - "AA" batteries

MODELS AVAILABLE

(Requires extension-choose from below)

3331-021	Handle for all compatible fluids
Handle Extensions	
3332-066	Rigid w/Auto Lock Nozzle
3332-067	Flex w/Auto Lock Nozzle
3332-083	Rigid Hi-Flow w/Semi-Auto Lock Nozzle
3332-084	Flex Hi-Flow w/Semi-Auto Lock Nozzle

fusion 2.4 Accessories

Remote Antenna

Allows for remote mounting of the antenna

	3120-089	30' remote antenna

Allows both the included antenna and a remote antenna to be connected to a single key pad

	3120-090	Antenna splitter

RS 232 Serial Cable - 9 pin

	3120-059	RS 232 Cable 50'
	3120-060	RS 232 Cable 100'

Y-Strainer For filtering debris - 1,000 psi (70 bar) - all strainers have 60 mesh element

3120-051	1/2" NPT(F)	Pressure	1,000 psi (70 bar)
3120-010	3/4" NPT(F)	Material	Ductile Iron
3120-040	1" NPT(F)	Includes	Plug

Synergy Fluid Monitoring Systems
Today, the needs of our customers are more complex, the fluids are many, and the challenges of 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 fluid, coolant
- Tank monitoring of both fresh and used fluid
- PC and printer interface
- Security
- DMS interface
- 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 any fluid 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 liquid 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 to financial DMS applications. Synergy systems are compatible with ADP applications. Other Dealer Management Systems (DMS) interfaces may be developed, talk with your regional manager. The system provides precise metering and dispensing of fluids. Multilingual, English, Spanish, and French.

Remote Access
The keypads are designed to be located in strategic places allowing remote entry of reel number, 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 dispense points and offers a keyed manual override. Every outlet port can be given unique functions:

- Pin code
- Volume
- Time-out
- Job number
- Group access
- Pulse per unit
- Display information
- 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 you Balcrank representative for additional information.

Example of Mid-Range Synergy System

PC Interface

Tank Module

MPDM

MPDM

Keypad

Keypad
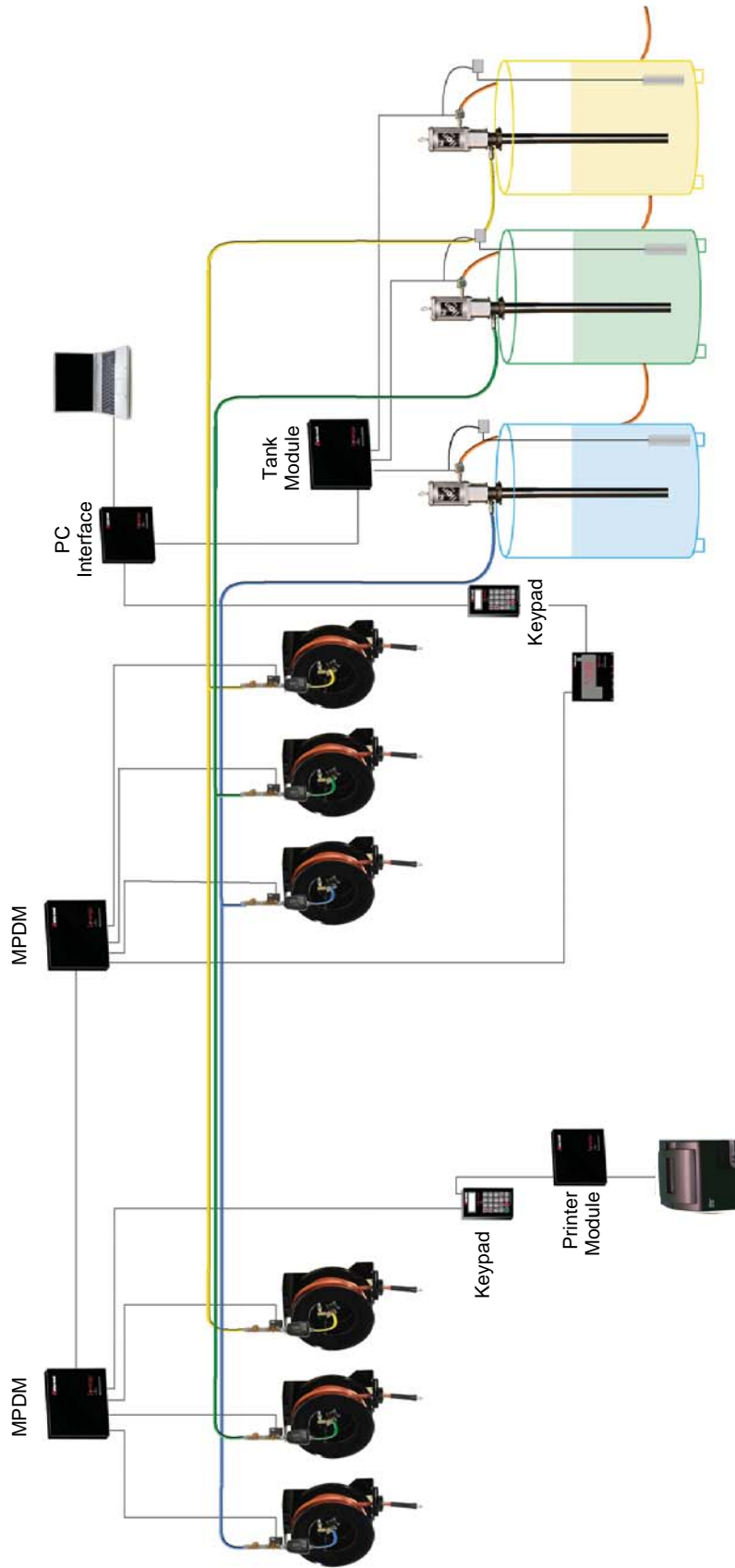
Printer Module

BOM
1 - 3110-018 - Printer Interface Module
1 - 3110-019 - PC Interface Module
1 - 3110-020 - Tank Control Module
1 - 3120-068 - LED Display
2 - 3110-016 - Standard Keypads
2 - 3110-017 - Multi-Point Dispense Module (MPDM)
6 - Pulse Meter/Solenoid Valve Kits - select the meter to match the fluid type
3 - 3120-033 - Air Solenoids
1 - 3120-069 - Ticket Printer
3 - Tank Level Sensors - select the sensor for fluid & method

Synergy Components

MULTI-POINT DISPENSE MODULE

Features
- The Multi-Point Dispense Module controls the amount of fluid ordered from any keypad or PC in the entire system
- One module controls up to 4 dispense points
- Every outlet port can be given unique functions: reel number, volume, time out, job number, group access, Pulse Per Unit, display information, min./max., and volume
- Equipped with key switch for normal operation, emergency override, and On/Off functions.

MODEL AVAILABLE

3110-017	Multi-Point Dispense Module

COMPONENT SPECIFICATIONS

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 832816
Power	Input-110 VAC, output - 24 VDC

KEYPAD

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

MODEL AVAILABLE

3110-016	Standard Keypad

COMPONENT SPECIFICATIONS

Function	Module allows remote entry of PIN, reel number, job number, and volume
Requirements & Limitations	• Minimum 1 keypad required to operate a remote system • No limit for number of keypads in the system
Power	Input - 24 VDC, output - 24 VDC

product specifications are subject to change without prior notice

PC INTERFACE MODULE

Features
- 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
  - Easy integration with other software for automatic invoicing

MODEL AVAILABLE

3110-019	PC Interface Module

COMPONENT SPECIFICATIONS

Function	Allows PC Interface

Requirements & Limitations	PC Requirements:
	• Runs under Windows 7/2000/ XP/ Vista/ Windows 8
	• Intel Pentium 2-333Mhz 128Mb RAM
	• Must have free compatible 9-pin serial port.
	• Comes with Basic Software
	  - Graphically view system
	  - Set system time, Update tank levels
	  - Simple data export

Power	Input - 24 VDC, output - 24 VDC

TANK CONTROL MODULE

Features
- 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 sensors. Control pumps - automatic start and stop and controls air solenoid valves
- Equipped with key switch for normal operation, emergency override and On/Off functions

MODEL AVAILABLE

3110-020	Tank Control Module

COMPONENT SPECIFICATIONS

Function	Tank level monitoring and pump control
Requirements & Limitations	• 4 tanks per module • Can only be used in the PC based system • Tank sensors are required for true tank monitoring
Power	Input - 110 VAC, Output - 24 VDC

LED DISPLAY

Features
- Large display, easy to see from long distances
- The active outlet is shown in the lower left corner
- Accommodates a clock module for a non-PC system
- When equipped with a clock module or connected with a PC, the LED Display unit shows the current time when the system in 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.

MODEL AVAILABLE

3120-068	LED Display

COMPONENT SPECIFICATIONS

Function	Displays active dispense point & time
Requirements & Limitations	• 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.
Power	Input - 24 VDC, Output - 24 VDC

PRINTER MODULE

Features
- Interfaces FIC system to the optional ticket printer
- Internal database stores user, PIN, and job information, when no PC is used
- Database capability for small to medium shop
- Transaction details printed on the optional ticket printer.
- Can also be used in a PC system for job tickets anywhere in a system layout
- Accommodates a clock module for a non-PC system

MODEL AVAILABLE

3110-018	Printer Module

COMPONENT SPECIFICATIONS

Function	Controls printability and allows for ticket printing (with optional 3120-069 ticket printer)
Requirements & Limitations	• Max. 912 transactions • 32 users • 8 tanks • The non-PC system requires the Printer Module to create printouts of all transactions
Power	Input - 24 VDC, Output - 24 VDC

product specifications are subject to change without prior notice

TANK SURVEILLANCE MODULE

Features
- 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

MODEL AVAILABLE

3110-021	Tank Surveillance Module

COMPONENT SPECIFICATIONS

Function	Tank level monitoring and pump control
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 • Tank sensors are required for true tank monitoring
Power	Input - 110 VAC, Output - 24 VDC

SYNERGY FIC ACCESSORIES (Bar Code, Card, and Dallas Key Readers require a Serial Port Kit)

833019   833020

833021   833023

833019	Clock Module for LED or Printer Module
833022	Serial Port Kit
833020 + 833022	Bar Code Reader + Serial Port Kit
833021 + 833022	Card Reader + Serial Port Kit
833023 + 833022	Dallas Key Reader + Serial Port Kit

PROGRAMS & APPLICATIONS

| 3120-072	Professional Software Full-featured PC database Easy system configuration Optional connection to DMS systems Variety of standard & customized reports
3120-108	Client Set-up - Additional server/client control from multiple PC's
3120-070	Tank Alerts via E-mail
3110-023	DB Dock Service - Synchronize mobile database with main database
3120-111	ADP Interface - *Interface fees additional*
3120-112 3120-113	ADP Interface Fee-Quarterly ADP Interface Fee-Yearly

Synergy Components

SOLENOID VALVES

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. 22. *Order one per dispense point for use with Synergy*

Model #	Description	Component Specifications	
3120-073	Oil Anti-freeze (Glycol)	Pressure	725 psi (50 bar)
		Connection	1/2" NPT(M/M)
		Power	24 VDC

Model #	Description	Component Specifications	
3120-074	Grease	Pressure	7250 psi (500 bar)
		Connection	1/4" NPT(M)
		Power	24 VDC

Model #	Description	Component Specifications	
3120-075	Diesel	Pressure	145 psi (10 bar)
		Connection	3/4" NPT(M/M)
		Power	24 VDC

Model #	Description	Component Specifications	
3120-077	Windshield Washer Fluid	Pressure	725 psi (50 bar)
		Connection	1/2" NPT(M/M)
		Power	24 VDC

Model #	Description	Component Specifications	
3120-078	DEF	Pressure	725 psi (50 bar)
		Connection	1/2" NPT(M/M)
		Power	24 VDC

product specifications are subject to change without prior notice

COMMUNICATION & CONTROL

Communication Cable
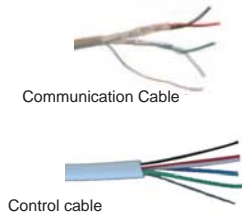
Control cable

Model #	Description
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.
3129-150	Control Cable 150 ft.
3129-250	Control Cable 250 ft.

TANK SENSORS *(switches provide low level/high level depending on float settings, analog provides actual volume)*
for use with Tank Control Module 3110-020 and Tank Surveillance Module 3110-021

3120-084

3120-081

Model #	Description
3120-079	Level Sensor, Switch, Oil
3120-080	Level Sensor, Switch, *Other Fluids
3120-081	2 Level Sensor, Switch, Oil
3120-082	2 Level Sensor, Switch, *Other Fluids
3120-083	2 Level Sensor, Switch, Waste Fluids
3120-084	Level Sensor, Analog, Oil

* Other fluids include: Anti-freeze (Glycol), WW Fluid, and DEF

TICKET PRINTER

Model #	Description
3120-069	Optional Ticket Printer for use with Printer Module 3110-018

Pump Sentinel

PUMP SENTINEL

Pump Sentinel allows for the controlled dispensing of fluids. The unit is capable of preventing fluid theft by utilizing rocker switches to enable or disable up to six pumps via a master key which is needed to turn on the system. The console also prevents fluid spills during non-working hours by using a built in timer which will turn off the air supply to all pumps at a predetermined time each day.
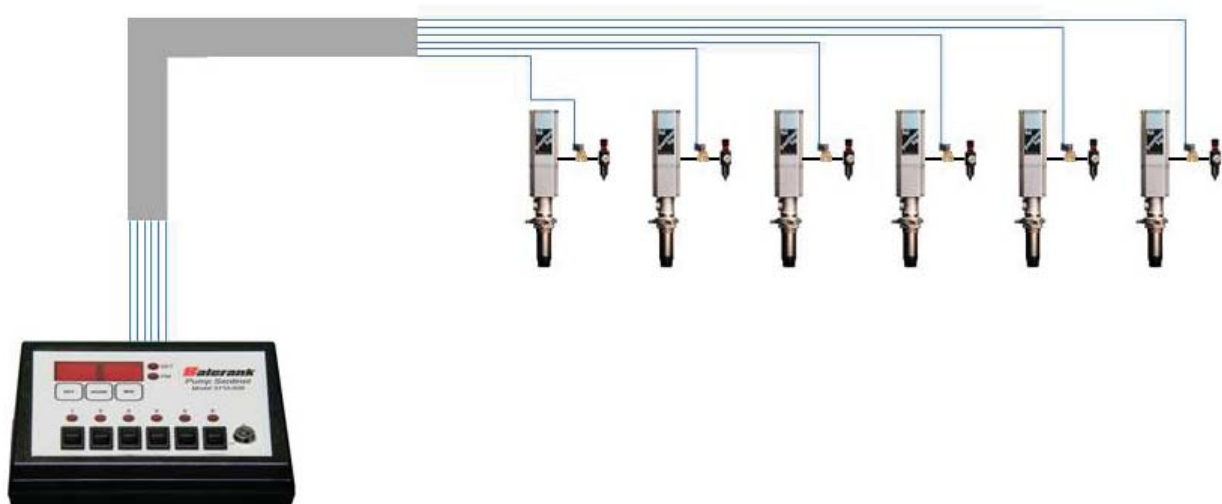
Features
- Capable of preventing fluid theft by using switches to enable or disable up to six pumps
- Master key needed to turn system on
- 6' cable to run to junction box
- Small Console footprint: 6.5" L x 5" W x 3" H

AVAILABLE MODELS

3110-009	Pump Sentinel Console

SPECIFICATIONS

Function	On/Off control for up 6 pumps using 24 VDC solenoids
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 24VDC wiring can be run around the overhead structure of the building without using conduit. • Select one - 24 VDC Air Solenoid (3120-033) for each pump
Power	120 VAC, 60/50 Hz, 50 Watts
Service Bulletin	SB3048

product specifications are subject to change without prior notice

CABLE WIRE PREP KIT

Assists installers in providing premium quality wiring hook-ups. Kit includes cable jacket remover, wire stripper, and pin crimper.

Model #	Description
832057	Wire Preparation kit Includes: 1-Wire Sheath Stripping Tool 1-Wire End Stripping Tool 1-Wire Ferrule Crimping Tool 1- Package Wire end ferrule- 18 AWG (500 pcs)

IMPULSE METER

Measures dispensed fluid and generates a digital pulse signal used by the console to determine fluid quantities. *Unit can be mounted at the pump or at each dispense point for simultaneous dispensing.*

Model #	Description	Component Specifications	
3120-114	Impulse Meter 160 p/liter	Pressure	1,500 psi (100 bar)
		Connection	1/2" NPT(F)
		Power	30 VDC

READY LIGHT

Alerts technician when fluid batch is available for dispensing.

Model #	Description
3120-031	Ready Light

SOLENOID VALVES

Air Provides for the remote shutdown of dispensing pumps from the fluid control console. *Order one per controlled pump*

Model #	Description	Component Specifications	
3120-033	Air Solenoid Valve	Pressure	200 psi (14 bar)
		Connection	3/8" NPT(F)
		Power	24 VAC

Fluid Stops the flow of fluids instantly at the preset quantity. *Order one per dispensing reel/handle.*

Model #	Description	Component Specifications	
3120-032	Fluid Solenoid Valve	Pressure	1,500 psi (103 bar)
		Connection	1/2" NPT(F/F)
		Power	24 VDC

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