

EVO™ 600 & EVO™ 6000 SERIES

EVO™ 600 & EVO™ 6000 provide highly accurate inventory management and full-featured compliance monitoring for any size fuel system. Being module-based, the EVO™ Series is highly configurable for site-specific probe and sensor requirements. Their simple setup and operation, remote connectivity, and advanced security features protect your fuel system while keeping you directly connected to vital site data whenever, and wherever. The highly-intuitive, full-color, icon-based touch screen provides user-friendly on-site access to inventory, alarm, and compliance data.



HIGHLIGHTS

- Allows you to make informed, data-driven inventory management decisions while keeping your site in compliance and protected from security threats.
- Included Features: Inventory monitoring, Turbine Pump Interface™ (TPI) capability for enhanced and automated submersible turbine pump control, static tank testing, and containment compliance monitoring.
- Optional Features: 24-hour Statistical Continuous Automatic Leak Detection (SCALD®), tank autocalibration, inventory reconciliation, secondary containment monitoring, and flow rate monitoring.
- Patented AUTO-LEARN™ electronic line leak detection capability including Statistical Line Leak Detection for high throughput sites.
- Streamlined setup and programming includes hardware auto-detection and wiring confirmation, multipoint tank charting, network printer auto-detection, and the ability to download and upload entire programming profiles from one EVO™ to another.
- Intuitive full-color 7" (17.78 cm) LCD touch screen interface provides simplified on-site access features including:
 - Up to Six (6) One Touch Buttons that are custom programmed to carry out common automated tasks with a single tap.
 - A Quick Jump Menu that allows you to quickly maneuver from application to application using a single button.
 - Programmable product colors for each tank.
- FFS PRO® Connect allows you to remotely connect to your EVO™ from any web-enabled device.
- Optional WiFi allows secure and protected on-site viewing of inventory levels for fuel delivery drivers.
- Compatible with the Multiplexing Sensor Hub™ (FMP-MSH).
- Compatible with Corrosion Control™ Water Separator.
- Supports MQTT protocol, the standard for IoT messaging, for enhanced security of data transmission.

DO MORE WITH EVO™ SERIES

Leverage the power of an EVO™ to help operate and maintain your fuel system and network operations as efficiently as possible.



**TURBINE PUMP
INTERFACE™**



**ELECTRONIC LINE
LEAK DETECTION**



**CORROSION CONTROL™
INTEGRATION**



**FLOW RATE
MONITORING**



Inventory Reconciliation



Tank Autocalibration



Secondary Containment Monitoring



DEF/AdBlue® Recirculation

SPECIFICATIONS

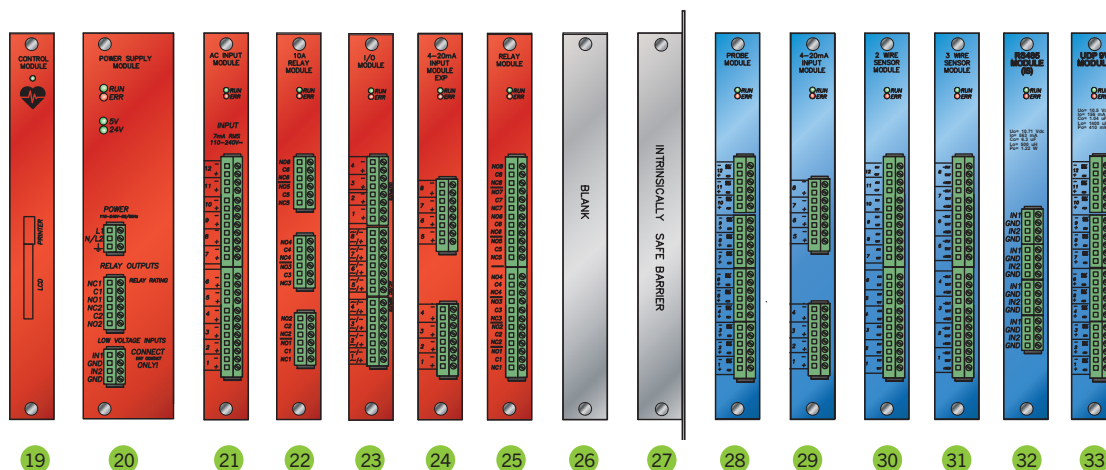
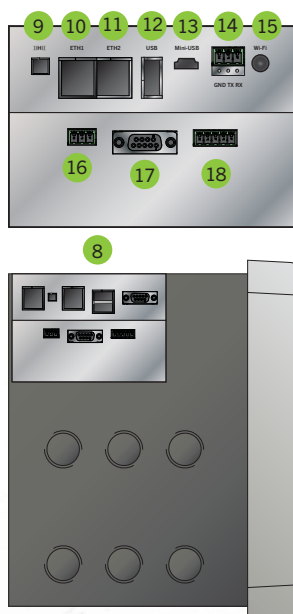
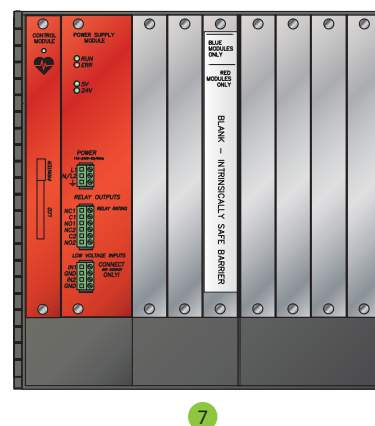
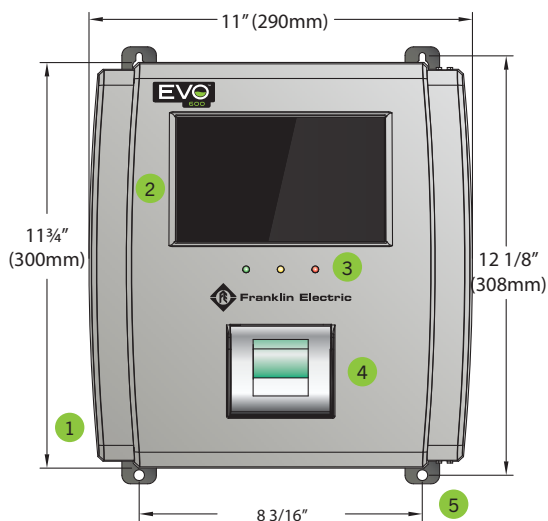
Maximum tanks monitored (stand-alone)	48 (EVO™ 600) / 72 (EVO™ 6000)
Maximum tanks monitored, with accessories	132* (EVO™ 600) / 168* (EVO™ 6000)
Maximum sensor input capacity (stand-alone)	48 (EVO™ 600) / 108 (EVO™ 6000)
Maximum sensor input capacity, with accessories	180* (EVO™ 600) / 244* (EVO™ 6000)
Maximum total inputs (stand-alone)	72 (EVO™ 600) / 132 (EVO™ 6000)
Maximum total inputs, with accessories	276* (EVO™ 600) / 336* (EVO™ 6000)
Maximum AC input channels (stand-alone)	36 (EVO™ 600) / 36 (EVO™ 6000)
Maximum AC input channels, with accessories	72* (EVO™ 600) / 72* (EVO™ 6000)
Maximum relay output channels (stand-alone)	26 (EVO™ 600) / 26 (EVO™ 6000)
Maximum relay output channels, with accessories	50* (EVO™ 600) / 50* (EVO™ 6000)
Dry contact input channels	2
Connectivity	Ethernet (qty 2). RS-232, RS-485, standard USB, Mini-B USB
Display type	7" (17.78 cm) color LCD touch screen
Printer type	Thermal (also network or USB)
Alarm	Internal audible alarm
LEDs	Alarm, warning, and power
Applicable liquids	Petroleum, chemicals, and waste
Level units	Inches, centimeters, and millimeters
Volume units	Gallons or liters (mass with density option)
Power requirements	110 to 240 VAC, 50/60 Hz, 1.5 Amps
Operating temperature	32° to 104° F (0° to 40° C)
Humidity	0-90% non-condensing
EVO™ 600 Dimensions	H: 11.75"(300 mm), W: 10¼"(260 mm), D: 9"(229 mm)
EVO™ 6000 Dimensions	H: 11.75"(300 mm), W: 16½"(419 mm), D: 9"(229 mm)
Alarm set points	High/low product, water, and temperature
Technical Advantages	Inventory reconciliation, tank autocalibration, flow rate monitoring
Measurements	Density, mass, and phase separation measurement
Notifications	Email and SMS
Programming	Back-up generator monitoring/conditions
Advanced Logic Control	DEF/AdBlue® recirculation system
Support	MQTT, MODBUS™, XML, Veeder-Root®
Approvals & Certifications	– UL, cUL, ATEX, IECEx, GSA IT Security – Third party certification of leak detection capabilities – Third party verified “MATURE” security posture level

*Requires use of FMP-EXPC Expansion Modules and/or FMP-MSH Multiplexing Sensor Hubs.

SPECIFICATIONS CONTINUED

Components

- 1 Cover
- 2 LCD Touch Screen
- 3 LED Indicators
- 4 Printer
- 5 Mounting Tabs
- 6 Cooling Vents
- 7 Module Slots
- 8 Communication Ports
- 9 Annunciator (audible alarm)
- 10 Ethernet Port 1
- 11 Ethernet Port 2
- 12 USB Port (Type-A)
- 13 USB Port (Mini-B)
- 14 RS-232 Comm Port 1
- 15 WiFi
- 16 Bus Extension
- 17 RS-232 Comm Port 2
- 18 RS-485 / TPI
- 19 Controller Module
- 20 Power Supply Module
- 21 AC Input Module (TS-ACI)
- 22 10 Amp Relay Module (TS-10ARLY)
- 23 I/O Module (TS-IO)
- 24 4-20mA Module EXP (TS-420EXP)
- 25 Relay Module (TS-RLY)
- 26 Blank
- 27 Intrinsically Safe Barrier
- 28 Probe Module (TS-PRB)
- 29 4-20mA Module (TS-420IB)
- 30 2-Wire Sensor Module (TS-2WSNS)
- 31 3-Wire Sensor Module (TS-3WSNS)
- 32 RS-485 Module (FMP-485IS)
- 33 UDP Module (FMP-UDP9)



- There can only be three types of one module, except for the UDP Module, which allows for up to six in an EVO™ or Expansion Console.
- If you require more than three types of one module (other than the UDP Module) in an EVO™ or Expansion Console, please contact your FFS sales representative to review your needs.
- The intrinsically safe barrier must be installed in the third slot or greater. (The third slot after the Power Supply Module.)

SPECIFICATIONS CONTINUED

Module Selection Guide

					
Module	Relay Module (TS-RLY)	10 Amp Relay Module (TS-10ARLY)	4-20 mA Module NIS (TS-420EXP)	AC Input Module (TS-ACI)	Input O Mod (TS-I)
Inputs	-	-	8	12	8 (3-240 V)
Outputs	8	6	-	-	4 (4-20 mA)
EVO™ 600/6000 Compatibility	✓	✓	✓	✓	✓
EVO™ 550/5000 Compatibility	✓	✓	✓	✓	✓
Maximum Allowed Modules per EVO™ Console	3	3	3	3	3
Maximum Allowed Modules with EVO-EXPC / EVO-EXPC2 Expansion Module	6	6	6	6	6
Franklin Electric Device Compatibility	SCM TS-SCCM WATER SEPARATOR 40798593 OVERFILL ALARM TS-RK	-	ELLD TS-LSU500E	-	-
Typical Application	Secondary containment control, submersible pump control, water separator control, and overfill alarm control	Dispenser shutdown control	LS500 transducer pressure monitoring, third party 4-20mA device monitoring	Dispenser hook signal monitoring	Remote monitoring, control, and interfacing

* EVO™ 600/6000, EVO™ 500/5000 are backwards compatible with the TSP-XXX versions of the sensors.

NOTE: FMP-XXX-U sensors are not compatible with EVO™ 550/5000.

Output Module (O)	UDP Module (FMP-UDP9)	RS-485 Module (FMP-485IS)	4-20 mA Module IS (TS-420IB)	Probe Module (TS-PRB)	3-Wire Sensor Module (TS-3WSNS)	2-Wire Sensor Module (TS-2WSNS)
VAC/DC)	12	4	8	12	8	12
mA)	-	-	-	-	-	-
	✓	✓	✓	✓	✓	✓
	-	-	✓	✓	✓	✓
	6	3	3	3	3	3
	12	6	6	6	6	6
	PROBES FMP-LL3-XXX FMP-LL3-XXX-I SENSORS FMP-UHS FMP-ULS FMP-CDS-U FMP-DDS-U FMP-DDS-UD FMP-DIS-U FMP-DPS-U FMP-DTS-U FMP-EIS-U FMP-HIS-U FMP-HIS-XL-U	MSH FMP-MSH	ELLDD TS-LSU500 FMP-LSU500 SCM TS-SCCM SENSORS TS-VPS DEF RECIRCULATION FMP-TEM	PROBES FMP-LL3-XXX FMP-LL3-XXX-I TSP-LL2-XXX TSP-LL2-XXX-I SENSORS FMP-CDS-U FMP-DDS-U FMP-DIS-U FMP-DPS-U FMP-DTS-U FMP-EIS-U FMP-HIS-U FMP-HIS-XL-U TSP-DMS-XX VAPOR FLOW TS-VFM	SENSORS FMP-DDS* FMP-DIS* FMP-DTS* FMP-EIS* FMP-HFS FMP-HFS2 FMP-HIS* FMP-HIS-XL* FMP-UHS* FMP-ULS* TSP-DVS TSP-HLS-XX TSP-HLS-XX/SS	SENSORS FMP-HFS FMP-HFS2 FMP-UHS* FMP-ULS* TSP-HLS-XX TSP-HLS-XX/SS
Monitoring building system	Liquid level monitoring, discriminating / non-discriminating liquid detection, corrosion control monitoring	Connecting to Multiplexing Sensor Hubs™	LS500 transducer pressure monitoring, vapor recovery monitoring, secondary containment monitoring, third party 4-20mA device monitoring	Liquid level monitoring, discriminating / non-discriminating liquid detection, corrosion control monitoring, vapor flow monitoring	Discriminating / non-discriminating liquid detection, overflow prevention	Non-discriminating liquid detection, overflow prevention



Modules that are non-intrinsically safe



Modules that are intrinsically safe

ORDERING INFORMATION

Ordering Guide

EVO™ model, software and hardware options can be listed separately or combined when ordering. Systems shipped from the factory will list the combined part number. Complete part numbers have a specific order and are created using the following guidelines:

EVOX DPWI / TRFLGC

EVOX = Base Model Options

EVO600 = EVO™ 600 base model

EVO6000 = EVO™ 6000 base model

DPWI = Hardware Options (choose all that apply)

D = Display

P = Printer

W = WiFi

I = Dispenser Interface Module

TRFLGSC = Software Options (choose all that apply)

T = SCALD® 24-hour tank testing

R or F = (R) Reconciliation/Autocalibration or

(F) Reconciliation/Autocalibration with
Flow Rate Monitoring

L or G = (L) Electronic Line Leak Detection or

(G) Generator Electronic Line Leak Detection

S = Secondary Containment Monitoring

C = Enhanced logic conditions including value, counter,
value compare, latch, and DEF/AdBlue® recirculation.

Example: EVO600DPWI/TRL = EVO™ 600 base model with display, printer, WiFi, Dispenser Interface Module, SCALD®, Reconciliation/Autocalibration, and line leak detection.

Dispenser Interface Module Cables

Model	Description
TSP-BDCBL	Bennett® 515 only cable
TSP-GDCBL	Gilbarco® cable
TSP-GSDCBL	Gilbarco® G-Site™ cable
TSP-WDCBL	Wayne™ cable

EVO™ 600/6000 Interface Modules

The EVO™ 600/6000 come standard with a Power Supply Module and a Controller Module. Additional interface modules can be installed. Interface modules ordered with an EVO™ will be installed at the factory. If you would like them to not be installed, please order the spare/replacement version of the module. The following guidelines must be followed:

- EVO™ 600: Six total modules can be installed with a maximum of four intrinsically safe modules and a maximum of three of any one kind of module, except for the UDP Module, which allows for a maximum of four modules.
- EVO™ 6000: Eleven total modules can be installed with a maximum of nine intrinsically safe modules and a maximum of three of any one kind of module, except for the UDP Module, which allows for a maximum of six modules.

Note: Do not include the Power Supply and Controller Modules when calculating total modules allowed.

Maximum UDP Modules Allowed to Run Concurrently with Probe Modules in a Single EVO™ Console or Expansion Console

The UDP Module is intended to replace the Probe Module for all new system orders. If you are planning to add UDP Modules to an existing EVO™ 600/6000 with Probe Modules, please adhere to the following table:

Existing Probe Modules	Allowable UDP Modules
0	6
1	4
2	2
3	0

ORDERING INFORMATION CONTINUED

Intrinsically Safe Modules

Model	Description
FMP-485IS	RS-485 Module 4 MSH inputs (allows for 24 total inputs) Compatible with FMP-MSH Multiplexing Sensor Hubs™ (EVO™ 600/6000 only)
FMSP-485IS	Spare/Replacement RS-485 Module
FMP-UDP9	UDP Module 12 inputs Compatible with FMP-LL3-XXX and FMP-LL3-XXX-I probes, FMP-UHS and FMP-ULS sensors, and FMP-XXX-U sensors (EVO™ 600/6000 only)
FMSP-UDP9	Spare/Replacement UDP Module
TS-2WSNS	2-Wire Sensor Module 12 inputs Compatible with FMP-HFS2, FMP-UHS*, FMP-ULS*, TSP-HLS-XX, and TSP-HLS-XX/SS sensors
TSSP-2WSNS	Spare/Replacement 2-Wire Sensor Module
TS-3WSNS	3-Wire Sensor Module 8 inputs Compatible with FMP-DDS*, FMP-DIS*, FMP-DTS*, FMP-EIS*, FMP-HIS*, FMP-HIS-XL*, FMP-UHS*, FMP-ULS*, TSP-DVS, TSP-HLS-XX, and TSP-HLS-XX/SS sensors
TSSP-3WSNS	Spare/Replacement 3-Wire Sensor Module
TS-PRB	Probe Module 12 inputs Compatible with TSP-LL2-XXX, TSP-LL2-XXX-I, FMP-LL3-XXX, and FMP-LL3-XXX-I probes; TSP-DMS-XX and FMP-XXX-U sensors; and TS-VFM vapor flow meters
TSSP-PRB	Spare/Replacement Probe Module
TS-420IB	4-20 mA Module 8 inputs Intrinsically Safe Compatible with FMP-LSU500 and TS-LSU500 transducers and FMP-TEM, TS-VPS, and TS-SCCM sensors
TSSP-420IB	Spare/Replacement 4-20mA Module, Intrinsically Safe

Note: EVO™ 600/6000 are backwards compatible with the TSP-XXX versions of sensors denoted with "*".

Non-Intrinsically Safe Modules

Model	Description
TS-10ARLY	10 Amp Relay Module 6 outputs 10 Amp Compatible with high power dispenser shutdown control functions
TSSP-10ARLY	Spare/Replacement 10 Amp Relay Module
TS-420EXP	4-20 mA Module 8 inputs Explosion-Proof Compatible with TS-LSU500E transducers
TSSP-420EXP	Spare/Replacement 4-20mA Module, Explosion-Proof
TS-ACI	AC Input Module 12 inputs Compatible with dispenser hook signal monitoring functions
TSSP-ACI	Spare/Replacement AC Input Module
TS-IO	Input Output Module 4 4-20 mA outputs 8 3-240 VAC/DC inputs Compatible with remote monitoring control and building monitoring system interfacing functions
TSSP-IO	Spare/Replacement Input Output Module
TS-RLY	Relay Module 8 outputs 2 Amp Compatible with submersible pump control, water separator control, secondary monitoring control, and overflow alarm control functions
TSSP-RLY	Spare/Replacement Relay Module

Expansion Consoles

The EVO-EXPC2 must follow the same guidelines as the EVO™ 600, and the EVO-EXPC must follow the same guidelines as the EVO™ 6000.

Model	Description
EVO-EXPC	Secondary console to add eleven additional plug-in modules to the primary EVO™ 600/6000, comes without a display or printer
EVO-EXPC2	Secondary console to add six additional plug-in modules to the primary EVO™ 600/6000, comes without a display or printer

EVO™ 600/6000 Hardware & Software Field Upgrades

The following software and hardware options can be added to customize your EVO™ once it's been installed in the field.

Hardware Field Upgrades

Model	Description
EVO-DISPREP	Display upgrade for an EVO™ 600/6000, EVO™ 550/5000 with existing Interface Board REV 4 or lower
EVO-TMPTR	Thermal internal printer assembly upgrade for an existing EVO™ 600/6000, EVO™ 550/5000, comes with one roll of printer paper
EVO-DIMIB	Internal Dispenser Interface Module upgrade for an existing EVO™ 600/ 6000, dispenser interface cable must be ordered separately
EVO-LCD	Display upgrade for an EVO™ 600/6000 with existing Interface Board REV 5 or higher (for REV 4 or lower, use EVO-DISPREP)

Dispenser Interface Module Cables

Model	Description
TSP-BDCBL	Bennett® 515 only cable
TSP-GDCBL	Gilbarco® cable
TSP-GSDCBL	Gilbarco® G-Site™ cable
TSP-WDCBL	Wayne™ cable

ORDERING INFORMATION CONTINUED

Internal Software Field Upgrades

Model	Description
TS-TT	Statistical Continuous Automatic Leak Detection (SCALD®) 24-hour tank testing
TS-TRAC	Tank inventory reconciliation and autocalibration
TS-TRAC-F	Reconciliation/autocalibration and flow rate monitoring
TS-FLOW	Flow rate monitoring
TS-ELLD	Electronic line leak detection
TS-ELLD-G	Electronic line leak detection for generator applications
TS-SCM	Secondary containment monitoring
TS-CON	Enhanced logic conditions including value, counter, value compare, latch, and DEF/AdBlue® recirculation

EVO™ 600 & EVO™ 6000 Spare/Replacement Parts

Spare/Replacement Modules

Model	Description
EVO-6CM	Spare EVO™ 600/6000 Controller Module, standard features only, no software options
EVO-6CM/R	Replacement EVO™ 600/6000 Controller Module, factory programmed with existing software options
EVO-6CM-W/R	Replacement EVO™ 600/6000 Controller Module with WiFi hardware, factory programmed with existing software options
TSSP-EXPPS	Spare/Replacement Expansion Console Power Supply Module
TSSP-PS	Spare/Replacement Power Supply Module
TSSP-T550MB	Spare/Replacement Backplane Module

Note: The serial number of the existing EVO™ must be provided when ordering the EVO-6CM/R and EVO-6CM-W/R.

Spare/Replacement Hardware

Model	Description
EVO-IFBR	Spare/Replacement Interface Board for EVO™ 600/6000
EVO-LCD	Spare/Replacement LCD Display for existing EVO™ 600/6000 with existing Interface Board REV 5 or higher (for REV 4 or lower, use EVO-DISPREP)
EVO-DISPREP	Spare/Replacement LCD Display and Interface Board for EVO™ 600/6000, EVO™ 550/5000
EVO-TMPTR	Spare/Replacement thermal internal printer assembly for EVO™ 600/6000, EVO™ 550/5000, comes with one roll of printer paper
EVO-6CVR	Spare/Replacement Cover for EVO™ 600/6000
EVO-DIMIB	Spare/Replacement Internal Dispenser Interface Module for an EVO™ 600/6000
TSSP-TRMBLK	Spare package of 10 assorted terminal blocks
600-0251	Spare/Replacement Wide Ribbon Cable - Controller Module to Interface Board
600-0252	Spare/Replacement Thin Ribbon Cable - Controller Module to Interface Board
600-0253	Spare/Replacement Wide Ribbon Cable - Display to Interface Board

Note: The serial number of the existing EVO™ must be provided when ordering the EVO-6CM-W/R.

Printer Paper Supplies

Model	Description
TS-TP2	One box of 5 rolls of thermal printer paper for EVO™ 600/6000, EVO™ 550/5000
TS-TP2C	One case with 20 boxes of 5 rolls of thermal printer paper for EVO™ 600/6000, EVO™ 550/5000

ORDERING INFORMATION CONTINUED

EVO™ Series Upgrade Kit

Get all of the EVO™ 600/6000 capabilities, including Corrosion Control features and more, on an existing EVO™ 550/5000 with the easy-to-install EVO™ Series Upgrade Kit.

Model	Description
EVO-600UPG/U	Upgrade kit for EVO™ 550 to EVO™ 600, includes Controller Module, comm port cover, and EVO™ 600 jewel. No software options.
EVO-6000UPG/U	Upgrade kit for EVO™ 5000 to EVO™ 6000, includes Controller Module, comm port cover, and EVO™ 6000 jewel. No software options.
EVO-600UPG	Upgrade kit for EVO™ 550 to EVO™ 600, includes Controller Module, comm port cover, and EVO™ jewel, factory programmed with existing software options
EVO-6000UPG	Upgrade kit for EVO™ 5000 to EVO™ 6000, includes Controller Module, comm port cover, and EVO™ 6000 jewel, factory programmed with existing software options
EVO-600UPG-W	Upgrade kit for EVO™ 550 to EVO™ 600 with WiFi, includes Controller Module, comm port cover, WiFi hardware, and EVO™ 600 jewel, factory programmed with existing software options
EVO-6000UPG-W	Upgrade kit for EVO™ 5000 to EVO™ 6000 with WiFi, includes Controller Module, comm port cover, WiFi hardware, and EVO™ 6000 jewel, factory programmed with existing software options

Note: The serial number of the existing EVO™ must be provided when ordering the EVO-600UPG, EVO-6000UPG, EVO-600UPG-W, and EVO-6000UPG-W.

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