

Eaton 2020 PredictPulse Sales Order Guide

Revision 1.2.6, April 20, 2020

Audience: Eaton Power Quality Employees, authorized Eaton sales agents, partners, field service, global partners

Summary: Descriptions of all variations of PredictPulse remote monitoring service, how to order, connectivity and related parts requirements, where to get help and further information

Platform: PredictPulse is migrating customers to a new platform. The legacy version will be discontinued August 2020. The latest network card firmware is required for Javelin.

Existing customer migration: All current US subscribers to PredictPulse will be migrated to the Javelin platform starting April 2020 except EOSL models and devices with obsolete Network-MS cards. Subscribers with connected eligible single phase (DPQ) devices as of May 2020 will be offered a no-charge Gigabit Network-M2 card, Environmental Monitoring Probe Generation 2 and instructions on replacing and activating PredictPulse by end of June 2020. EOSL subscribers will no longer be eligible for PredictPulse in 2020 and will receive a credit for any services no longer supported (in addition, EOSL subscribers will be eligible for a product refresh promotion).

Customers with legacy ConnectUPS Web/SNMP network cards or out-of-date network card firmware will need to upgrade to the latest firmware on a compatible network card.

Availability: USA, varies by model (April to July 2020)

Channels: All channels and markets are eligible and may be sold with new products (concurrent) or aftermarket

Concurrent eligible: Yes, service may be quoted with any compatible product as a standalone service or in combination with a warranty, extended warranty or service contract (PredictPulse Insight predictive analytics requires parts and labor coverage if sold after initial warranty period; PredictPulse remote monitoring can be sold standalone without any other service coverage).

Promotions and free trials: A PredictPulse remote monitoring subscription is included with all Eaton 3-phase UPS models (and Eaton 9155) in the US for the first warranty year at no charge. Customers can self-install or arrange with Eaton to install during the startup or any scheduled site visit upon request, or a purchased PredictPulse labor installation visit may be ordered. Customers need to have the email server network (or 4G wireless modem), network card and EMP parts and complete a network checklist if Eaton is assisting with this process. Eaton 9390, 93PM and 9395 models include a no-charge network card and EMP during the warranty year for customers installing PredictPulse (request through Eaton service parts team).

A free 90-day trial is offered to any Eaton UPS customer so they can self-install and evaluate PredictPulse remote monitoring. At the end of this trial customers will be encouraged to purchase a subscription prior to the service being disconnected.

Several promotions are available for both existing and new customers to upgrade or connect. Promotions and campaigns will be separately described and are subject to change.

Eaton PredictPulse (Javelin) UPS Model Compatibility:

Eaton UPS Model	PredictPulse remote monitoring availability	PredictPulse Insight/Plus availability	Connectivity Card
93PM, 93PM-L	April 2020	2020	PXGMS
9395, 9395P	April 2020	2020	PXGXUPS
9395C	July 2020	2020	PXGXUPS
9390	April 2020	2020	PXGXUPS
9315	April 2020	2020	PXGXUPS
9355, 9155	April 2020	2020	PXGXUPS
BladeUPS	July 2020		PXGXUPS
5P, 5PX	July 2020		Network M2
9P, 9PX, 9SX, 9PXM	July 2020		Network M2
9E, 93E	July 2020		Network M2

Notes:

1. Gigabit Network M2 requires Environmental Monitoring Probe Generation 2 (744-A4026)
2. Existing and new PredictPulse devices are compatible with the legacy system until early 2020

Eaton Model and Connectivity Card, EMP Requirements

UPS Model	Required Connectivity Card	Required Connectivity Card Part Number	Required Environmental Monitoring Probe (EMP) Part Number
Eaton 5P, 5PX, 9SX, 9P, 9PX, 9PXM	Network-M2	744-A3983	744-A4026
Eaton 9155, 9355	Power Xpert Gateway UPS (PXGXUPS)	103007974-5591	116750224-001
Eaton BladeUPS	Power Xpert Gateway UPS (PXGXUPS)	103007974-5591	116750224-001
Eaton 9390, 9390IT	Power Xpert Gateway UPS (PXGXUPS)	103007974-5591	116750224-001
Eaton 93E (9E)	Network-M2	744-A3983	744-A4026
Eaton 93PM	Power Xpert Gateway Mini Slot (PXGMS)	P-116000035	116750224-001
Eaton Power Xpert 9395, 9395P, 9395C, 9315	Power Xpert Gateway UPS (PXGXUPS)	103007974-5591	116750224-001

Eaton PredictPulse Connectivity Part Numbers:

- PowerXpert Gateway UPS (PXGXUPS) connectivity card (103007974-5591)
- PowerXpert Gateway Minislot (PXGMS) UPS connectivity card (P-116000035)
- Environmental monitoring probe EMP (116750224-001)
- Gigabit Network-M2 connectivity card (744-A3983)
- Environmental Monitoring Probe Generation 2 (744-A4026)
- Power Xpert 6 Port Ethernet Switch (PXES6P24V) and power supply (PXESPS12V)
- Power Xpert 4 Port Ethernet Switch (PXES4P24V) and power supply (PXESPS12V)
- PredictPulse NA IoT 4G Wireless Modem Kit (P-103003239)

PredictPulse Connectivity Kits (includes connectivity card, EMP and quick start guide):

- PredictPulse PXGX-UPS Connectivity Kit (P-103001921)
- PredictPulse PXGMS UPS Connectivity Kit (P-103001920)
- PredictPulse Network-M2 Connectivity Kit (P-106000205)

Requirements: Must have a compatible Eaton power quality device (UPS), connectivity card and environmental monitoring probe (EMP) with the latest network card firmware required for Javelin, access to a SMTP mail server (LAN network drop, IP address, SMTP server enabled so outbound emails can be sent to Eaton) OR a 4G wireless modem and 120VAC protected outlet (to power modem); PredictPulse is an Eaton PQ service contract item and all policies, legal terms and conditions apply the same as a service contract; subscribers will enroll and read and accept the PredictPulse Terms of use and Privacy Policy to access their subscription

Field installation: In general, PredictPulse remote monitoring and PredictPulse Wireless can be self-installed by customers. All versions of PredictPulse Insight predictive analytics (including Wireless versions) include an Eaton field technician installation and labor. Eaton offers an optional PredictPulse Remote Monitoring Labor Installation service suitable for non-Insight orders and Wireless orders requiring the Universal Accessories Power (UAP) field upgrade (to power the 4G modem). *Customers should allow for a maintenance bypass window (UPS offline) for 1 to 3 hours per UPS installation when Eaton is onsite performing any PredictPulse installation to enable firmware updates and related component inspections or changes.*

- PredictPulse Labor Install After Hrs (7x24) (SW05NXXX-003X)
- PredictPulse Labor Install Bus. Hours (5x8) (SW06NXXX-003X)

End of Service Life (EOSL): The following models and connectivity devices will no longer be eligible for PredictPulse after August 2020. Subscribers should refresh these products to compatible Eaton UPS models and activate their PredictPulse subscriptions to retain this service coverage.

- Eaton Evolution, Evolution S, EX, MX, EX RT
- Eaton 5125
- Eaton 9130
- Eaton 9125
- Eaton 9135
- Eaton 9140
- Eaton 9170
- Eaton 9330

- Eaton Network-MS connectivity card (replace with Gigabit Network-M2 connectivity card)
- Eaton ConnectUPS Web/SNMP connectivity card (replace with PXGX-Gateway UPS connectivity card)

PredictPulse Service Offerings:

- PredictPulse remote monitoring
- PredictPulse Insight predictive analytics
- PredictPulse Insight Plus (3/6) predictive analytics (Plus 3 for capacitors less than 3 years old, Plus 6 for capacitors between 3 and 6 years old)
- PredictPulse Wireless remote monitoring
- PredictPulse Insight Wireless predictive analytics
- PredictPulse Insight Wireless Plus (3/6) predictive analytics (Plus 3 for capacitors less than 3 years old, Plus 6 for capacitors between 3 and 6 years old)
- PredictPulse Remote Monitoring Labor Installation (Eaton field service will install PredictPulse or PredictPulse Wireless remote monitoring service; requires UPS to already be started and connectivity parts)

PredictPulse remote monitoring features

- 24/7 expert remote monitoring of Eaton power quality devices
- Integrated with Eaton field service technicians, technical support and monitoring analysts
- Real-time visibility on the go - mobile and browser app display of alarms, trends
- 24/7 notification call and dispatch on urgent alarms
- Remote diagnostic for faster on-site repairs
- Alarm, event notification by SMS text message, email and phone
- High temperature critical alarms
- Lost communication alerts
- Intuitive reports - Monthly and on-demand summary reports
- Smart alarms, alarm log summary
- Cloud, subscription based (Microsoft Azure based)
- No VPN required; uses outbound only SMTP email
- Integrated with Eaton UPS firmware, sensors and connectivity card technology
- Unlimited number of users, devices
- Unlimited location hierarchy
- Ability to self-manage users, preferences, devices and locations
- GDPR (personal data privacy) compliant
- Eaton actively manages cyber security plan, vulnerability detection
- Can be self-installed or Eaton installed
- 4G wireless connectivity (optional)
- 15-minute telemetry data refresh
- Realtime alarms and events
- Service history, field activity reports, component data

PredictPulse Insight predictive analytics features

- *All features of PredictPulse remote monitoring plus*

- Cloud-based predictive analytics to predict the risk of component failure (Insight): batteries, capacitors, fans, air filters, power train
- Annual asset optimization report
- Predictive risk assessment, reporting (Insight)
- Verification visit to inspect test and confirm predictive alerts (Insight)
- Proactively replace components before failure (Insight)
- Eaton installed
- Optional **PredictPulse Insight Plus** adds proactive replacement coverage for capacitors, fans

PredictPulse Wireless:

- These service items bundle the PredictPulse subscription, the appropriate 4G wireless modem, Ethernet switch materials and AT&T IoT Wireless Data Plan for either customer self-installation or an optional PredictPulse Remote Monitoring Labor Installation.
- PredictPulse Wireless bundles include an as-needed Universal Accessories Power (UAP) field upgrade, to power the 4G modem, and an Ethernet switch to connect multiple UPS's to a single modem. If a UAP is required when a site has no protected 120VAC convenience outlet, quote the PredictPulse Remote Monitoring Labor Installation.
- Sites where multiple UPS's can be connected to a single modem require a customer installed Ethernet LAN connection to each UPS
- **Recommended: each UPS have a dedicated Eaton connectivity card and environmental monitoring probe (EMP) to connect to the 4G wireless modem for cyber security best practices (isolates data from internal networks).** For situations where a UPS only has one card available it can be shared with an Ethernet switch.
- **Excluded:** All PredictPulse Wireless offerings exclude the Eaton connectivity card and environmental monitoring probe (EMP) and the optional labor to install a Universal Accessories Power (UAP) field upgrade (if UAP is required to power the 4G modem, order a PredictPulse Remote Monitoring Labor Installation)
- If a site has weak or no AT&T signal coverage, request a no-charge PredictPulse signal test site visit. An Eaton field technician will use a 4G wireless modem near the UPS to verify whether a cellular data signal will work; the IoT modem has stronger signal sensitivity than most mobile devices, although AT&T wireless won't work everywhere. If a PredictPulse Wireless is ordered and Eaton cannot complete the installation, a full credit will be issued, and the customer can use a traditional SMTP mail server network connection or cancel the order.
- Universal Accessories Power (UAP) 208V/208V field upgrade (P-103003411)
- Universal Accessories Power (UAP) 400V/480V field upgrade (P-103003412)
- Universal Accessories Power (UAP) 208V/480V field upgrade (P-103003413)
- PredictPulse NA IoT 4G Wireless Modem Kit (P-103003239) Note: only order to replace a 4G modem, new orders should use a PredictPulse Wireless SKU

Wireless questions to check before ordering:

1. Is there a good AT&T signal in the room?
 - a. If yes, modem will work.
 - b. If no, request a PredictPulse signal test to verify cellular function (email predictpulseoperations@eaton.com with the site information (SN and POC should suffice)

2. Where are the units in relation to each other?
 - a. If same room, can be supported by one modem if the units are within 100 meters of the modem.
 - b. If separate rooms, will need additional modems.
3. Are multiple units being hooked up?
 - a. If yes, is a network switch available? If yes, do not need to send an Eaton network switch. If yes, but no network switch is available, may need to send the 4 or 6 port switch, depending on how many units are being hooked up to the modem.
 - b. If no, do not need to send an Eaton network switch.
4. If a network switch is being ordered, is there a long enough ethernet cable to hook it up to the modem?
 - a. If yes, no need for any cabling.
 - b. If no, ethernet cabling must be done by customer.
5. Is there a UPS protected outlet available for the modem and/or switch?
 - a. If yes, do not need to order a UAP.
 - b. If no, will need to order at least one UAP. The part number is UPS voltage dependent.
6. If the UAP is not needed for the modem, and you are utilizing a switch, is a second UPS protected outlet available for the switch power supply?
 - a. If yes, will need to order part # PXESPS12V for the 6 ft power supply cord.
 - b. If no, will need to order part # ELC-PS02 for the hard-wired PS, as well as the appropriate UAP.
7. Are they utilizing the current connectivity card for anything else?
 - a. If yes, it is recommended to order an additional connectivity card.
8. Do they already have an EMP?
 - a. If yes, do not need to order an EMP.
 - b. If no, an EMP will need to be ordered. One EMP needed per PredictPulse enabled connectivity card. Note the EMP2 is required with the Network M2 card.

PredictPulse Remote Monitoring

- PredictPulse remote monitoring is a 24/7 remote monitoring cloud-service that customers can self-install or optionally order an Eaton field technician to install.
- Requirements: Must have a compatible Eaton power quality device (UPS), connectivity card and environmental monitoring probe (EMP), access to a SMTP mail server (LAN network drop, IP address, SMTP server enabled so outbound emails can be sent to Eaton) OR a 4G wireless modem and 120VAC protected outlet (to power modem).
- This service may be purchased in addition to any Eaton PQ service or extended warranty or as a standalone service. In the US, PredictPulse remote monitoring is included for the first warranty year on all Eaton three phase UPS models at no charge.
- Use SOW R-32

PredictPulse Insight Predictive Analytics

- PredictPulse Insight predictive analytics adds a predictive analytics function to the above PredictPulse remote monitoring service and includes an installation by an Eaton field technician
- Requirements: Must have a compatible Eaton power quality device (UPS), connectivity card and environmental monitoring probe (EMP), access to a SMTP mail server (LAN network drop, IP address, SMTP server enabled so outbound emails can be sent to Eaton) OR a 4G wireless modem and 120VAC protected outlet (to power modem)
- Customers should allow for a maintenance bypass window (UPS offline) for 1 to 3 hours per UPS installation when Eaton is onsite performing any PredictPulse installation to enable firmware updates and related component inspections or changes.
- This service may be purchased in addition to any Eaton PQ service or extended warranty or as an upgrade to the first year bundled PredictPulse remote monitoring service. Post warranty, this service requires a parts and labor coverage service contract or extended warranty during the term of coverage.
- Eaton 9315 models will include a monitor board upgrade to enable the firmware updates required for this service. There's no additional charge for this part or labor. An Expansion Chassis may also be required for 9315 at no additional charge. Note: 9315 monitor board may be incompatible with existing building management systems or other monitoring software.
- Eaton 9390 models may require a Mini CSB field upgrade or related upgrades for this service. There's no additional charge for this part or labor.
- Use SOW R-36

PredictPulse Insight Plus (3/6) Predictive Analytics

- PredictPulse Insight Plus (3/6) predictive analytics adds a predictive analytics function to the above PredictPulse remote monitoring service and includes an installation by an Eaton field technician
- Plus 3 is for capacitors less than 3 years old, Plus 6 is for capacitors between 3 and 6 years old
- Requirements: Must have a compatible Eaton power quality device (UPS) with capacitors not older than 6 years of age, connectivity card and environmental monitoring probe (EMP), access to a SMTP mail server (LAN network drop, IP address, SMTP server enabled so outbound emails can be sent to Eaton) OR a 4G wireless modem and 120VAC protected outlet (to power modem)
- Customers should allow for a maintenance bypass window (UPS offline) for 1 to 3 hours per UPS installation when Eaton is onsite performing any PredictPulse installation to enable firmware updates and related component inspections or changes.
- This service may be purchased in addition to any Eaton PQ service or extended warranty or as an upgrade to the first year bundled PredictPulse remote monitoring service. Post warranty, this service requires a parts and labor coverage service contract or extended warranty during the term of coverage.
- Eaton 9315 models will include a monitor board upgrade to enable the firmware updates required for this service. There's no additional charge for this part or labor. An Expansion Chassis may also be required for 9315 at no additional charge. Note: 9315 monitor board may be incompatible with existing building management systems or other monitoring software.
- Eaton 9390 models may require a Mini CSB field upgrade or related upgrades for this service. There's no additional charge for this part or labor.
- Use SOW R-37

Ordering Scenarios

There are quick start and wireless modem installation procedures available to customers self-installing PredictPulse remote monitoring. Eaton has PredictPulse technical support available to assist customers preparing an installation or post installation. While many customers self-install, Eaton offers a PredictPulse Remote Monitoring Labor Installation service to coordinate and simplify the installation for PredictPulse Wireless or PredictPulse Insight (Insight always includes installation labor at no additional charge).

PredictPulse Remote Monitoring for any Eaton UPS

1. Which Eaton UPS model does the customer have? Is it compatible and started up?
2. If this is a new product order (concurrent), does the order/product include the connectivity card? Does the customer already have the correct connectivity card and EMP? If not, order connectivity parts.
3. For new concurrent orders Eaton recommends a PredictPulse Wireless remote monitoring SKU to ensure order is setup during startup (order PredictPulse Remote Monitoring Labor Installation service).
4. Does the customer have a SMTP mail server network set-up (LAN network drop, IP address, SMTP server enabled so outbound emails can be sent to Eaton) or prefers a 4G wireless modem? If wireless, order a PredictPulse Wireless remote monitoring SKU.
5. If Wireless is ordered, will the customer already have a connectivity card used for internal/other monitoring? If yes, order a separate (dedicated) connectivity card and EMP so wireless is isolated from other network and data (increases cyber security).
6. Does customer prefer to self-install or have Eaton install? If Eaton install, order PredictPulse Remote Monitoring Labor Installation service. Identify the point of contact for Eaton to arrange this installation on PO or order. Have the customer complete the PredictPulse network checklist, submitted with the order, if possible.

PredictPulse Insight Predictive Analytics for any Eaton UPS

1. Which Eaton UPS model does the customer have? Is it compatible and started up?
2. If this is a new product order (concurrent), does the order/product include the connectivity card? Does the customer already have the correct connectivity card and EMP? If not, order connectivity parts.
3. For new concurrent orders Eaton recommends a PredictPulse Wireless remote monitoring SKU to ensure order is setup during startup.
4. This service may be purchased in addition to any Eaton PQ service or extended warranty or as an upgrade to the first year bundled PredictPulse remote monitoring service. Post warranty, this service requires a parts and labor coverage service contract or extended warranty during the term of coverage. Is there a warranty or service coverage in force? If not, quote parts and labor coverage.
5. Does the customer have a SMTP mail server network set-up (LAN network drop, IP address, SMTP server enabled so outbound emails can be sent to Eaton) or prefers a 4G wireless modem? If wireless, order a PredictPulse Wireless remote monitoring SKU.
6. If Wireless is ordered, will the customer already have a connectivity card used for internal/other monitoring? If yes, order a separate (dedicated) connectivity card and EMP so wireless is isolated from other network and data (increases cyber security).
7. This service always includes an Eaton field service installation at no additional cost. Do not order any PredictPulse Remote Monitoring Labor Installation service whether Wireless is ordered or not.

7. Identify the point of contact for Eaton to arrange this installation on PO or order. Have the customer complete the PredictPulse network checklist, submitted with the order, if possible.

PredictPulse Insight Plus (3/6) Predictive Analytics for any Eaton UPS

1. Follow same PredictPulse Insight predictive analytics process as above
2. Are the UPS capacitors less than 3 years old? Quote Plus 3.
3. Are the UPS capacitors between 3 and 6 years old? Quote Plus 6.
4. Are the UPS capacitors older than 6 years old? This service cannot be quoted; quote PredictPulse Insight predictive analytics

Questions? Contact Eaton PredictPulse support at 800-843-9433, option 2, option 5 or predictpulseoperations@eaton.com