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Site Installation Checklist – Enabler Embedded

PDM = Plug-in Distribution Module

Pre-installation resources

There are a number of resources provided by ITL or equipment suppliers which should be used during installation or be available for problem resolution.

Enabler Embedded "Getting Started" guide: http://integration.co.nz/embedded/docs.htm	
Check ITL Website to confirm the pumps at site are supported, and you have everything you need to connect them: http://www.integration.co.nz/embedded/PumpSummary.htm	
Local safety and wiring regulations	
Setup instructions available for the pumps you will be connecting (or authorised pump service person on hand)	
Recommendations from pump manufacturers on cable type and connections - type of cable - maximum lengths - signal shield grounding	
Check familiarity with Enabler Embedded Hardware: - LCD Service Display messages - LED indicators http://integration.co.nz/embedded/FAQ-LEDs.htm	
If you are unsure of this process, or you have not installed Enabler Embedded before; We recommend you read through and practice this process in a lab environment (as much as is possible) to ensure you know what to expect and have the tools & equipment you need to succeed.	

Site Preparation

This section is a checklist for tasks that should be performed in advance of the planned day for installation. Once these items are complete the site should be ready for installation.

Site layout reviewed and location for Enabler Embedded has been decided. Location for network and power must also be considered.	
Necessity for lightning protection has been considered.	
Location for Enabler Embedded mounting has been prepared; pump communications cables already installed and ready to connect to Enabler Embedded. If pump communications cables have not already been run through forecourt conduit then arrangements for this should be made.	
Routing for cable to Tank Gauge has been cleared/prepared (optional)	
Number of Tanks:	
Number of Grades:	
Number of Pumps (and Hoses per pump): NOTE : maximum is 24 pumps (with 3 PDMs fitted).	
Enabler Embedded system purchased.	
Correct PDM type and quantity purchased.	
POS or other systems connecting to Enabler Embedded are ready to connect. - Enabler Client software installed. - Your own site automation software installed and configured. - Network equipment (Ethernet router/switch) & cables.	
Consider taking a spare Enabler Embedded UPS battery. Useful to have in case of battery failure.	

Enabler Embedded Preparation

This preparation can be performed before taking equipment to site – this will help reduce the time required on site.

Enabler Embedded has latest software installed.	
Software Activation complete – this can be done at site if an internet connection is available.	
Ports configured.	
Tanks and Grades configured.	
Pumps and Hoses configured ready for connection. (Connected to Port, Pump Type selected, Display Format checked). Check for configuration details in FAQ.	
Grade prices configured (or set to default prices)	
Pump Modes / Site Modes configured (Auto Auth, Stacking options etc)	
Required PDM cards are as per Pump FAQ.	
PDM jumper(s) set as indicated in Pump FAQ.	
PDM cards have plug connectors in place ready to connect to pump communications cables.	

Installation

These steps will be done during installation at site.

Enabler Embedded case securely fixed to wall/rack/cabinet.	
Earth connection from Enabler Embedded case to earth (GND pin of power socket).	
Power supply secured and connected to Enabler Embedded.	
Pump communications cables ready to connect to PDM.	
Ethernet connected to Enabler Embedded, and cable secured. Check Enabler LEDs indicate connection and activity as expected.	

Communications Connection & Check

This process checks communication with external devices connected to the Enabler. ITL recommends that the pump communication cables are connected one at a time and each pump is checked for good communication before the next pump is connected. This approach makes fault diagnosis easier.

The LED indicators or Enabler Web - Site Monitor page can be used to check pump communication. The pump icons on the Site Monitor page show a red cross when pump communication has not yet been established.

Without the pump communications cables connected power on Enabler Embedded.	
For each pump follow these steps	
Remove the green plug from PDM and secure the pump communication wires as per the appropriate FAQ.	
Connect the green plug to the PDM – If available the Yellow Connection LED on the PDM should indicate connectivity.	
Check that the pump responds – if problems are found check all configuration and connection as per the appropriate FAQ and fault diagnosis diagrams.	
Check that prices are sent to the pump – if the price is incorrect correct the display format following the display format on the pump.	
Lift each Hose/Nozzle in turn and check that the appropriate grade is displayed on Pump Icon. Grades configuration for the Pumps Hoses may need to be corrected.	
It is worthwhile performing some test deliveries on pumps to ensure that Display Format and Delivery Details are correct.	
To connect a Tank Gauge to Enabler follow the FAQ 'Connecting Tank Gauge to Enabler'. Level information can also be viewed on the Site Monitor web page to confirm tank gauge communication has been established.	

Final Checks

These are final checks before leaving the site.

We recommend running a backup of the Enabler Embedded system using the Enabler Web Apps. Wait for it to complete and download it from the system if you can. *Tip: Once you have everything setup and working this could save time to setup similar sites, or if support is required later.*	
Pump communication cables routed and secured in place - Cable ties to Enabler Embedded case. - Conduit or cable covers are recommended.	
Test UPS operation - Disconnect Enabler Embedded power supply. - Alarm should sound, and Status Display indicate countdown. - Reconnect Enabler Embedded power supply. - Alarm should stop.	
Enabler Case lid is secure.	
If you have any questions about the setup or operation you want to escalate to ITL Support, remember to collect log files from the Enabler Web page.	
Site manager & staff are briefed on how to report problems (e.g. report date & time problem occurs, along with description)	