475 Field Communicator

- Full-color graphical user interface
- Powerful field diagnostics
- Bluetooth® communication
- Long-lasting Lithium-Ion power module
- Universal support for HART® and FOUNDATION™ fieldbus devices

The 475 Field Communicator is designed to support all HART and FOUNDATION fieldbus devices from all vendors.

Introduction

The 475 Field Communicator builds on the industry-leading technology of the 375 Field Communicator while adding innovative new capabilities including color display, Bluetooth communication, and advanced field diagnostics with applications like ValveLink™ Mobile.

What you get is the most powerful handheld available – universal, user upgradeable, intrinsically safe, rugged and reliable. Only the 475 Field Communicator can deliver all this in a single handheld communicator.

Product Description

The 475 Field Communicator is designed to simplify your work in the field. The intuitive full color user interface allows you to leverage the same practices for both HART and FOUNDATION fieldbus devices. It includes a larger touch screen than PDAs or Pocket PCs, supports HART versions 5, 6, and 7 (including *Wireless*HART™) devices, and allows you to upgrade your 475 Field Communicator onsite using the Internet.

See and Feel the Difference

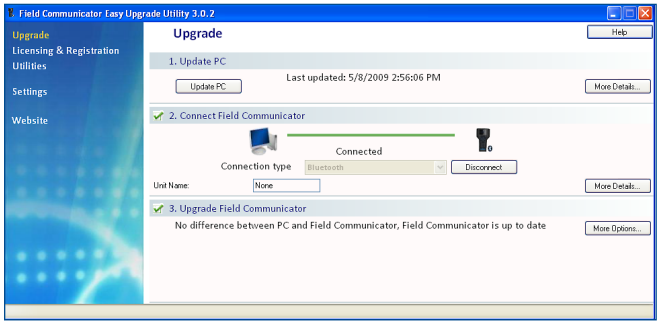
The touch screen display uses transflective technology, making it easy to read in both bright sunlight and normal lighting. To make sure all conditions are covered, a multi-level backlight is included, allowing bright, crisp display even in plant areas with dim light.

EMERSON™
Process Management

Gain advanced diagnostics in the field through ValveLink Mobile and enhanced graphics.

The touch screen display and large physical navigation buttons provide for efficient use both on the bench and in the field. The icon-based user interface allows you to navigate quickly and efficiently.

The full color graphics capability is provided as standard with every 475 Field Communicator. It uses powerful EDDL technology to allow you to read data from field devices in a graphical manner. Charts, graphs, gauges, and product images are just a few of the ways in which important device data can be displayed using the 475 Field Communicator's color LCD display.



The Easy Upgrade Utility allows you to transfer system software, DDs, and HART device configurations between the 475 Field Communicator and a PC.

The weight of the 475 Field Communicator is evenly distributed for comfortable one-handed operation in the field. It runs on Windows CE, a robust, real-time operating system. The 475 Field Communicator has plenty of memory to allow for future expansion. It has 32 MB of application memory and 1 GB of memory on its System Card.

New HART and FOUNDATION fieldbus devices, as well as functional updates to existing devices, are introduced continually by device vendors. Keeping up-to-date with the required Device Descriptions (DDs) for all the devices in your plant can be a real challenge.

With *Easy Upgrade*, when new HART and FOUNDATION fieldbus DDs become available, you can simply download them from the Internet and upgrade your 475 Field Communicator. Update at your site, within your control, when it's convenient for you.

Online Licensing

The Online Licensing capability provided with *Easy Upgrade* allows you to enable new options for your 475 Field Communicator over the Internet. With Online Licensing, powerful options like FOUNDATION fieldbus can be added by simply purchasing the license and downloading it directly to your communicator.

The 475 Field Communicator, with its handy carrying case, provides a single tool for configuring and diagnosing HART and FOUNDATION fieldbus devices.

Universal – HART and FOUNDATION fieldbus

With over 1,300 different HART and FOUNDATION fieldbus devices available from more than 100 manufacturers, the 475 Field Communicator works with all your devices to positively impact your bottom line.

Through *Easy Upgrade*, you always have access to the latest HART and fieldbus drivers. With the 475 Field Communicator, you are guaranteed universal HART and FOUNDATION fieldbus support in a single, intrinsically safe handheld communicator.

Intrinsically Safe

The 475 Field Communicator meets the Intrinsic Safety requirements of the listed regulatory agencies and standards. All of the available Hazardous Locations approvals are provided in a single model option (see Ordering Information).

- CENELEC/ATEXvibration is present.
- Factory Mutual (FM)
- Canadian Standards Association (CSA)
- FISCO
- IECEx

Even the power module is approved for installation in hazardous areas.

Rugged and Reliable

It's called "Field Communicator" for a reason. Some tasks just have to be performed at the device in the field. The 475 Field Communicator is designed for tough use in your plant or mill. Its large keys and physical navigation buttons allow for one-handed operation, even with your work gloves on. The rugged display is designed to take the knocks and shocks from normal use in the plant.

Easily store and print device configurations for analysis and documentation requirements.

ATEX FM APPROVED

The protective rubber boot provides added protection in the field.

The 475 Field Communicator's Protective Rubber Boot provides added protection in the field and in your toolbox. Both the rubber boot and 475 housing are designed in accordance with Intrinsic Safety standards to limit the build up of static electrical energy.

The 475 Field Communicator is designed, manufactured, and tested to very demanding specifications. It is ready to go wherever you need to go to get the job done.

Powerful Diagnostics

Interface with AMS Device Manager

The 475 Field Communicator is fully compatible with AMS Device Manager, the industry standard for asset management software. In fact, Control Magazine readers have selected AMS Device Manager as the #1 Calibration Software package for over 13 years in a row.

AMS Device Manager uses the intelligence from field devices to create a predictive maintenance environment. AMS Device Manager allows you to configure, calibrate, document, and troubleshoot HART, FOUNDATION fieldbus, and *Wireless*HART devices.

Transfer device configuration data to AMS Device Manager via the IrDA port or Bluetooth interface on your 475 Field Communicator and PC. Take your 475 Field Communicator out to the field to configure or update one or more devices. Save up to 1,000 device configurations in your communicator or transfer them to AMS Device Manager.

Together, the 475 Field Communicator and AMS Device Manager enable you to efficiently manage all of your devices.

Device Configuration Management

Using the *Easy Upgrade* Utility, you can back up hundreds of device configurations and can transfer them between your communicator and a PC. This library of device configurations is easy to view and print for analysis.

Identify Valve Problems

Run valve diagnostics in the field with the ValveLink Mobile application. You can quickly perform tests including valve signature, dynamic error band, PD one button sweep, and step response on HART and FOUNDATION fieldbus Fisher® FIELDVUE™ digital valve controllers.

The intuitive user interface makes ValveLink Mobile easy to use and understand. Diagnose issues in the field or transfer the results to an asset management system like AMS Suite for in-depth analysis and documentation.

Diagnose Network Problems

The 475 Field Communicator can be used to configure all the FOUNDATION fieldbus devices in your plant. Use it to perform diagnostics for effective start-up and troubleshooting of fieldbus segments. Create a quality segment by diagnosing the network DC voltage and average noise.

Detect power supply problems by monitoring low frequency noise on a segment. Locate incorrect terminations and faulty devices by diagnosing the communications signal level.

For HART loops, the 475 Field Communicator allows you to verify whether the DC voltage in the loop is correct.

Specifications

Processor And Memory	
Microprocessor	80 MHz Hitachi® SH3
Memory Internal Flash	32 MB
System Card	1 GB secure digital card
RAM	32 MB
Physical	
Weight	Approximately 1.65 lb. (0.75kg) with battery
Display	1/4 VGA (240 by 320 pixels) color, 3.5 in. (8.9 cm) transflective display with touchscreen
	Anti-glare coated
Keypad	25 keys including 4 action keys, 12 alphanumeric keys, tab key, function key, backlight key, power key, and 4 cursor-control (arrow) keys; membrane design with tactile feedback
Power Supply / Charger	
Battery	Rechargeable Lithium-Ion power module
Battery Operating Time	20 hours – continuous use
	40 hours – typical use
	80 hours – standby mode
Battery Charger Options	Input voltage 100-240 VAC, 50-60 Hz
	Cables included with U.S., Europe, and U.K. plugs
Connection	
Battery Charger	Mini DIN 6-pin jack
HART and Fieldbus	Three 4mm banana jacks (one common to HART and FOUNDATION fieldbus
IrDA Port	IrDA (Infrared Data Access) port supporting up to 115 Kbps
	± 15 degrees recommended maximum angle from center line
	Approximately 18 in. (45.7 cm) recommended maximum distance
Bluetooth	Up to 32.8 ft. (10 m) communication distance
	Uses standard Windows drivers
	FCC, IC, and CE approvals
	Certified for use in over 60 countries
Environmental	
Usage	-10°C (14°F) to +50°C (122°F)
Battery	0% to 95% RH (non-condensing) for 0°C (32°F) to +50°C (122°F)
Charge	10°C (50°F) to +40°C (104°F)
Storage With Batteries	-20°C (-4°F) to +55°C (131°F)
Storage Without Batteries	-20°C (-4°F) to +60°C (140°F)
Enclosure Rating	IP51 (from front)
Shock	Tested to survive a 1-meter drop test onto concrete
***Easy Upgrade* Requirements**	
Usage	PC with Internet access
	CD Rom drive
	IrDA port (or adapter) or Bluetooth (or adapter)
	SD Card Reader (required for some upgrades)
	Windows XP (SP2 or SP3), Windows Vista Business (SP1), or Windows 7

475 Field Communicator Spare Parts List

Description	Part Number
00275-0096-0001	Ruggedized 250 Ohm Load Resistor
00475-0002-0022	Rechargeable Lithium-Ion Power Module
00475-0003-0022	Power Supply & Charger (Li-ion/NiMH) US/UK/EU connection types included
00375-0003-0002	Power Supply/Charger Standard Cord Set (US/UK/EU cords)
00375-0003-0003	Australian (AU) cord for Power Supply/Charger
00375-0004-0001	Lead Set with connectors
00475-0005-0002	Hand Strap (pack of 2)
00475-0005-0003	Carrying Case (with spare Hand Strap and Stylus)
00475-0005-0004	Magnetic Hanger
00475-0005-0005	Protective Rubber Boot with Stand
00475-0006-0001	Stylus (pack of 2)
00375-0015-0002	IrDA to USB Adapter (1)
00375-0018-0022	System Card (SD) Reader (with USB Interface) (2)
00475-0018-0023	Bluetooth Adapter (1) (9)
00475-0044-0001	Stand
00475-0019-FK01	Field Accessory Kit (6)
00475-0019-SK01	Shop Accessory Kit (Bluetooth) (7) (9)
00475-0019-SK02	Shop Accessory Kit (non-Bluetooth) (7)
00475-0045-3001	Getting Started Guide
00475-0049-0001	Resource CD (8)
00475-0049-DVD1	Resource DVD
00475-0050-TRN1	Technical Training CD
Online Licensing (4)	
00375-0142-0002	FOUNDATION fieldbus License Via Web
00475-0142-2003	*Easy Upgrade* (New/Renew) License via Web (3)
AMS Device Manager Handheld Interface Kit (5)	
AW7005HC00025	AMS Device Manager Field Communicator Interface Kit (25 tags)
AW7005HC20000	AMS Device Manager Field Communicator Interface Kit (100 Tags and above)

(1) Can be used to support communication between the 375/475 and the *Easy Upgrade* Programming Utility or AMS Device Manager (with Handheld Communicator Interface Kit). Either IrDA or Bluetooth communication is required to register the 375/475 or use the Online Licensing system.

(2) The System Card (SD) Reader allows a user the ability to upgrade a System Card much faster than when using IRDA or Bluetooth. Due to file size constraints, major upgrades require the use of a card reader.

(3) The *Easy Upgrade* feature allows users to add new System Application software and Device Descriptions (DDs) to the 475 for a period of 3 years. To upgrade without this feature, the System Card would have to be sent to a Service Center (fee would apply). When purchased, the expiration date becomes three (3) years from the date of the PO of three (3) years from the expiration date of the current license - whichever is greater. Current license can only be renewed within 6 months of the expiration date on the current license.

(4) These parts support license upgrades of System Cards in the field through the use of the Field Communicator Online Licensing system. The capacity is available to end users and may also performed by an agent on the user's behalf. It is at the agents discretion if an additional fee should apply. Any order must be accompanied by the System Card S/N. Instant notification of when the licenses are available for download are sent to emails provided at time of order. For further details, see the Online Licensing procedure at www.fieldcommunicator.com.

(5) Requires AMS Device Manager (v6.2 or higher). Both AMS Device Manager and the Handheld Communicator Interface Kit are available for sale through select channels only. See www.assetweb.com for more details.

(6) Contains Protective Rubber Boot, Ruggedized 250 Ohm Load Resistor, Magnetic Hanger, Stylus Pack, and Technical Training CD.

(7) Contains Field Accessory Kit plus System Card Reader, Bluetooth Adapter, and Resource CD and DVD. Non-Bluetooth model substitutes IRDA to USB adapter for Bluetooth adapter.

(8) Same content as Resource CD, but also includes localized versions for English, German, Russian, and Japanese.

(9) Not available for purchase from Rosemount - Chanhassen. Use alternative channel to order this part.

475 Field Communicator Ordering Information

Model	Product Description
475	Field Communicator (1)
Code	**Communication Protocol**
H	HART
F	HART and FOUNDATION fieldbus (2)
Code	**Battery Type**
P	Rechargeable Lithium-Ion Power Module
Code	**Power Supply/Charger**
1	Power Supply and Charger NiMH/Li-Ion (US/UK/EU connection types included) (3)
9	Not included (4)
Code	**Language**
E	English
C	Chinese
D	German
J	Japanese
R	Russian
F	French
P	Portuguese
Code	**Product Certifications**
KL	ATEX, FM, CSA and IECEx Intrinsically Safe (includes FISCO as applicable)
NA	No Approval
Code	***Easy Upgrade***
U	*Easy Upgrade* (3 year) Option (5)
9	Not Included
Code	**Standard Options**
GM	Graphics (included at No Charge) (6)
	Device Configuration Management (included at No Charge) (7)
Code	**Bluetooth**
T	Bluetooth Communication (8)
9	No Bluetooth Communication
Code	**Options**
A	Spare Rechargeable Lithium-Ion Power Module (9)
S	Protective Rubber Boot with Stand
Typical HART Model Number:	**475 H P 1 E KL U GMT S**
Typical HART/Fieldbus Model Number:	**475 F P 1 E KL U GMT S**

(1) Base Model 475 includes Field Communicator unit with Color LCD display, System Card, leadset with connectors, carrying case, Getting Started Guide, Resource CD, stylus, and straps.
(2) Must specify *Easy Upgrade* Option (Code U) when ordering this model option.
(3) To obtain an Australia power cord, order part number 00375-0003-0003.
(4) This option should only be considered if the user already has a 375 or 475 Power Supply/Charger. If it is a 375 Power Supply / Charger, it must be the Li-Ion/NiMH version.
(5) The *Easy Upgrade* capability allows users to add new System Application software and Device Descriptions (DDs) to the 475 for a period of 3 years. To upgrade without this feature, the System Card would have to be sent to a Service Center.
(6) The Graphics functionality enables a user to access enhanced grapical features when using the HART or FOUNDATION fieldbus application.
(7) Device Configuration Management provides the capablity to store in excess of 1,000 configurations and print them.
(8) Bluetooth enables communication to a PC via the Bluetooth protocol.
(9) A fully charged Lithium-Ion Power Module is capable of delivering power for 20 hours of typical field use. If requirements exceed this specification, a Spare Power Module (code A) should be specified.

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