

Additel761 Series Firmware Updates

2018-09-03

APC V01.XX		
Version	Updates	Note
Vertions before APC V01.03(Included)	No records	If the units production date is before 2011 for ADT761-D or ADT761-L, then they need to be sent back for updating.
APC V01.04	1.Added multiple language 2.Fixed the bug that the pressure range of internal pressure mudole is incorrectly displayed.	
APC V01.05	1. Added the prompt information when auto zeroing is failed. 2. Added the pressure transmitter calibration range to 0~10V.	
APC V01.06	1. Fixed the code bugs of reading mechanical gauge tasks and deleting tasks.	
APC V01.07	1. Added the Intake pressure auto zeroing funtion when start the unit. 2. Forbided the auto venting funtion when calibrate the pressure switch by task.	
APC V01.08	1. Solved the problem of some units cannot do the self tuning after changed the driver board. 2. Solved the problem of the pressure control at -95kPa is not stable.	
APC V01.09	1. Supported the absolute pressure function. 2. Added the atmosphere pressure display and calibrating functions. 3. Added the customer calibration function for the intake pressure sensor. 4. Added the tasks memories to 200 and screen shot memories to 900. 5. Added the inverse strike calibration operation. 6. Added the as found and as left process. 7. Added some serial port command.	
APC V01.10	1. Solved the problem of the pressure generating is abnormal for 400kPa pressure sensor after the firmware updated to APC V01.09 for 761-D and 761-L. 2. Fixed the bug that the engineering units are not correct when connected external pressure module.	
APC V01.11	Not released officially	
APC V01.12	Not released officially	
APC V01.13	1. Fixed the language missing problem. 2. Added to support the V6 and V7 of HART protocol, refactored some HART adjustment functions, added the sensor trim funtion and supported the updatings of HART DD files.	
APC V01.14	Not released officially	
APC V01.15	1. Added the range setting, manually speed regulation and pressure control rate for Switch task. 2. Added the setting to choose if auto zeroing pressure. 3. Added the inlet pressure faulties test and displying the fault code. 4. Added the reading units recognition for internal pressure modules and the converting of the readings. 5. Amended the datas reception mechanism for HART protocal stack. 6. Derease the filter coefficient of the pressure displaying.	ADT761-L or ADT761-D The Versions before V01.20 could be updated to V01.20 with the Additel/terminal
APC V01.16	1. Fixed the bug that when start the HART, the system response will be delayed when controlling pressure. 2. Fixed the bug that when doing the HART sensor trim, the pressure units converting are incorrect which will cause the faulty of sensor trim. 3. Added the codes of modifying the internal pressure module communication baud rate. 4. Added the factory calibration funtion for pressure modules. 5. Changed the Flash driver to be compatible with the new flash chip. 6. Refactored the corresponding relations between the products models and firmware versions. 7. Added the hardware version information in the " Products information" section.	These are all the old versions, if customers' units have problem, it's recommended to be sent back for hardware upgrading. For ADT761-D, should be upgraded to the version after APC V04.06.
APC V01.17	1. Added the runnging log record funtion to record the realtime data to support the diagnoses. 2. Added the instruction starting up mode when use the adaptor to supply power. 3. Fixed the bug of promoting information error judgment when there is leakage problems. 4. Changed the setting to close solenoid valve between pump and air chamber when the pump is stop, to avoid the pump repetitively restarting if there is leakage happened.	For ADT761-L/LA, should be upgraded to the version after APC V05.06

APC V01.18	<ol style="list-style-type: none"> 1.Added the zeroing function for absolute type, and added the venting delay and judgment for the pressure change rate when doing the gauge zeroing. 2. Added some serial commands for HART connection and pressure sensor calibration. And Fixed restoring factory reset failure problem when doing the Rosemount transducer pressure sensor calibration. 3. Altered the ADT761-D/L pump starting control mode to stoped the pump when the inlet pressue is stable, to prevent the faulties casused by the mismeasurement of Inlet pressure sensor. And shortened the starting time of ADT761-L/D/M, by canceling the inlet pressure measurement zeroing. 4. Fixed the the problem of the pump will continuously start and stop if the the external chamber is too big, the control mode is changed to whne the pressure is approaching the desired point the pump will be stoped. 5. Extended hte zeroing time from 6s to 12s. 	
APC V01.19	<ol style="list-style-type: none"> 1.Altered the fine adjust mode from reverse calibration control to setting points control,and improved the fine adjust and pressure controlling. 2. Added some serial commands for D/A Trim, Zero Trim of Hart. 3.Fixed the problem that when doing the differential pressure tasks, if not used the absolute pressure mode, the settings on set point cannot be stored. 	
APC V01.20	<ol style="list-style-type: none"> 1. Altered the CPV commands, added the command parameter"1" to go back to main interface. 2. Added the optional width of 4 for eexternal pressure module display. 3. Fixed the bug that the Absolute pressure setting is dispeared, and altered the swtich damping time from [0.1, 99] to [0.1, 20] 4. Added special processes for E+H Deltabar S and Cerabar S sensor calibration commands, for supporting their tansducer's sensor calibration. 	
APC V01.21	<ol style="list-style-type: none"> 1. Fixed the bug that the stability parameters was mistakenly changed in the event of abnormal auto-tuning. 	
APC V01.22	<ol style="list-style-type: none"> 1. Increases the battery fault tips. 2. Increase the battery voltage chip diagnostic functions. 3. Fixed the bug that the instructions of "R: OALLCTRLDATA" and "W: OHARTPARASET" executed error. 4. Fixed the bug that the boot progress bar displays not right. 	
APC V01.23	<ol style="list-style-type: none"> 1. Fixed a problem that the transmitter often disconnected when Communication with some type of HART transmitters. 	
APC V01.24	<ol style="list-style-type: none"> 1.Fixed the bug that the reconnection mechanism does not work well when the internal module is not connected. 2.Adjust the automation running parameters of the pressure switch task to reduce test time. 	
APC V01.25	<ol style="list-style-type: none"> 1. Add prompt when battery voltage is abnormal; 2. Add the software watchdog; 3. Modify the HART underlying transceiver delay mechanisms to improve the compatibility of HART devices; 4. Add Zeroing prohibition for External absolute pressure module; 5. Add support for pressure units mH2O; 6. Solve the problem of the loss of calibration data models when the internal pressure module calibration; 	
APC V02.XX		
Version	Updates	Note
APC V02.00	<ol style="list-style-type: none"> 1.Added multiple language 2.Fixed the bug that the pressure range of internal pressure mudole is incorrectly displayed. 	
APC V02.01	<ol style="list-style-type: none"> 1. Added the prompt information when auto zeroing is failed. 2. Added the pressure transmitter calibration range to 0~10V. 	
APC V02.02	<ol style="list-style-type: none"> 1. Fixed the code bugs of reading mechanical gauge tasks and deleting tasks. 2. Fixed the bug that sometimes cannot set -90kPa point on 761-M. 3. Fixed the bug that inlet pressure calibration is incorrect and caused the vacuum control is abnormal. 	
APC V02.03	<ol style="list-style-type: none"> 1. Added the Intake pressure auto zeroing funtion when start the unit. 2. Forbided the auto venting funtion when calibrate the pressure switch by task. 	
APC V02.04	<ol style="list-style-type: none"> 1. Supported the absolute pressure function. 2. Added the atmosphere pressure display and calibrating functions. 3. Added the customer calibration function for the intake pressure sensor. 4. Added the tasks memories to 200 and screen shot memories to 900. 5. Added the inverse strike calibration operation. 6. Added the as found and as left process. 7. Added some serial port command. 	
APC V02.05	<ol style="list-style-type: none"> 1. Fixed the bug that the displaying unit is abnormal when connect with external pressure modules. 	
APC V02.06	Not released officially	
APC V02.07	<ol style="list-style-type: none"> 1. Fixed the language missing problem. 2. Added to support the V6 and V7 of HART protocol, refactored some HART adjustment functions, added the sensor trim funtion and supported the updatings of HART DD files. 	
APC V02.08	Not released officially	

APC V02.09	<ol style="list-style-type: none"> 1. Added the range setting, manually speed regulation and pressure control rate for Switch task. 2. Added the setting to choose if auto zeroing pressure. 3. Added the inlet pressure faulties testing and displaying the fault code functions. 4. Added the reading units recognition for internal pressure modules and the converting of the readings. 5. Amended the datas reception mechanism of HART protocol stack. 6. Derease the filter coefficient of the pressure displaying. 	
APC V02.10	<ol style="list-style-type: none"> 1. Fixed the bug that when start the HART, the system response will be delayed when controlling pressure. 2. Fixed the bug that when doing the HART sensor trim, the pressure units converting are incorrect which will cause the faulty of sensor trim. 3. Added the codes of modifying the internal pressure module communication baud rate. 4. Added the factory calibration funtion for pressure modules. 5. Changed the Flash driver to be compatible with the new flash chip. 6. Refactored the corresponding relations between the products models and firmware versions. 7. Added the hardware version information in the " Products information" section. 	Use Additel/terminal to update the ADT761-M/MA Units with hardware version V02.XX are all the old structure before 2013. After 2013, the hardware versions are V05.XX.
APC V02.11	<ol style="list-style-type: none"> 1. Added the runnging log record funtion to record the realtime data to support the diagnoses. 2. Added the instruction starting up mode when use the adaptor to supply power. 3. Fixed the bug of promoting information incorrect judgment when there is leakage problems. 4. Changed the setting to close solenoid valve between pump and air chamber when the pump is stop, to avoid the pump repetitively restarting if there is leakage happened. 	
APC V02.12	<ol style="list-style-type: none"> 1. Added the zeroing function for absolute type, and added the venting delay and judgment for the pressure change rate when doing the gauge zeroing. 2. Added some serial commands for HART connection and pressure sensor calibration. And Fixed restoring factory reset failure problem when doing the Rosemount transducer pressure sensor calibration. 3. Altered the ADT761-D/L pump starting control mode to stoped the pump when the inlet pressue is stable, to prevent the faulties casused by the mismeasurement of Inlet pressure sensor. And shortened the starting time of ADT761-L/D/M, by canceling the inlet pressure measurement zeroing. 4. Fixed the the problem of the pump will continuously start and stop if the the external chamber is too big, the control mode is changed to whne the pressure is approaching the desired point the pump will be stoped. 5. Extended hte zeroing time from 6s to 12s. 	
APC V02.13	<ol style="list-style-type: none"> 1. Altered the fine adjust mode from reverse calibration control to setting points control, and improved the fine adjust and pressure control modes. 2. Added some serial commands for D/A Trim, Zero Trim of Hart. 3. Fixed the problem that when doing the differential pressure tasks, if not used the absolute pressure mode, the settings on set point cannot be stored. 	
APC V02.14	<ol style="list-style-type: none"> 1. Altered the CPV commands, added the command parameter"1" to go back to main interface. 2. Added the optional width of 4 for eexternal pressure module display. 3. Fixed the bug that the Absolute pressure setting is dispeared, and altered the swtich damping time from [0.1, 99] to [0.1, 20] 4. Added special processes for E+H Deltabar S and Cerabar S sensor calibration commands, for supporting their tansducer's sensor calibration. 	
APC V02.15	<ol style="list-style-type: none"> 1. Fixed the bug that the stability parameters was mistakenly changed in the event of abnormal auto-tuning. 	
APC V02.16	<ol style="list-style-type: none"> 1. Increases the battery fault tips. 2. Increase the battery voltage chip diagnostic functions. 3. Fixed the bug that the instructions of "R: OALLCTRLDATA" and "W: OHARTPARASET" executed error. 4. Fixed the bug that the boot progress bar displays not right. 	
APC V02.17	<ol style="list-style-type: none"> 1. Fixed a problem that the transmitter often disconnected when Communication with some type of HART transmitters. 	
APC V02.18	<ol style="list-style-type: none"> 1. Fixed the bug that the reconnection mechanism does not work well when the internal module is not connected. 2. Adjust the automation running parameters of the pressure switch task to reduce test time. 	
APC V02.19	<ol style="list-style-type: none"> 1. Add prompt when battery voltage is abnormal; 2. Add the software watchdog; 3. Modify the HART underlying transceiver delay mechanisms to improve the compatibility of HART devices; 4. Add Zeroing prohibition for External absolute pressure module; 5. Add support for pressure units mH2O; 6. Solve the problem of the loss of calibration data models when the internal pressure module calibration; 	
APC V03.XX		
Version	Updates	Note
APC V03.00		Use the Additel/Terminal to update the ADT761-BP
APC V03.01	No records	
APC V03.02	Not released officially	

APC V03.03	<ol style="list-style-type: none"> 1. Fixed the language missing problem. 2. Added to support the V6 and V7 of HART protocol, refactored some HART adjustment functions, added the sensor trim function and supported the updates of HART DD files. 	
APC V03.04	Not released officially	
APC V03.05	<ol style="list-style-type: none"> 1. Added the range setting for pressure switch tasks, and added the manually adjust rate and control rate. 2. Added the setting to choose if auto zeroing pressure. 3. Added the inlet pressure faults testing function and fault codes displaying. 4. Added the internal pressure modules units recognizing and reading conversion functions. 5. Amended the data reception mechanism for HART protocol stack. 6. Decrease the filter coefficient of the pressure displaying. 	
APC V03.06	<ol style="list-style-type: none"> 1. Fixed the bug that when start the HART, the system response will be delayed when controlling pressure. 2. Fixed the bug that when doing the HART sensor trim, the pressure units converting are incorrect which will cause the faulty of sensor trim. 3. Added the codes of modifying the internal pressure module communication baud rate. 4. Added the factory calibration function for pressure modules. 5. Changed the Flash driver to be compatible with the new flash chip. 6. Refactored the corresponding relations between the products models and firmware versions. 7. Added the hardware version information in the "Products information" section. 	Added the firmware program of APC V03.05 (APC-BP V02.04.03.02)
APC V03.07	<ol style="list-style-type: none"> 1. Added the running log record function to record the realtime data to support the diagnoses. 2. Added the instruction starting up mode when use the adaptor to supply power. 3. Fixed the bug of promoting information error judgment when there is leakage problems. 4. Changed the setting to close solenoid valve between pump and air chamber when the pump is stop, to avoid the pump repetitively restarting if there is leakage happened. 	To use the Additel/Terminal to update.
APC V03.08	<ol style="list-style-type: none"> 1. Added the zeroing function for absolute type, and added the venting delay and judgment for the pressure change rate when doing the gauge zeroing. 2. Added some serial commands for HART connection and pressure sensor calibration. And Fixed restoring factory reset failure problem when doing the Rosemount transducer pressure sensor calibration. 3. Altered the ADT761-D/L pump starting control mode to stop the pump when the inlet pressure is stable, to prevent the faults caused by the mismeasurement of Inlet pressure sensor. And shortened the starting time of ADT761-L/D/M, by canceling the inlet pressure measurement zeroing. 4. Fixed the the problem of the pump will continuously start and stop if the the external chamber is too big, the control mode is changed to when the pressure is approaching the desired point the pump will be stopped. 5. Extended the zeroing time from 6s to 12s. 	
APC V03.09	<ol style="list-style-type: none"> 1. Altered the fine adjust mode from reverse calibration control to setting points control, and improved the fine adjust operation and pressure controlling. 2. Added some serial commands for D/A Trim, Zero Trim of Hart. 3. Fixed the problem that when doing the differential pressure tasks, if not used the absolute pressure mode, the settings on set point cannot be stored 	
APC V03.10	<ol style="list-style-type: none"> 1. Altered the CPV commands, added the command parameter "1" to go back to main interface. 2. Added the optional width of 4 for external pressure module display. 3. Fixed the bug that the Absolute pressure setting is disappeared, and altered the switch damping time from [0.1, 99] to [0.1, 20] 4. Added special processes for E+H Deltabar S and Cerabar S sensor calibration commands, for supporting their transducer's sensor calibration. 	Added the firmware versions of APC-HP V03.03.03.04 and APC-HP V03.04.03.04
APC V03.11	Changed the valves controlling mode	
APC V03.12	1. Fixed the bug that the stability parameters was mistakenly changed in the event of abnormal auto-tuning.	
APC V03.13	<ol style="list-style-type: none"> 1. Increases the battery fault tips. 2. Increase the battery voltage chip diagnostic functions. 3. Fixed the bug that the instructions of ""R: OALLCTRLDATA"" and ""W: OHARTPARASET"" executed error. 4. Fixed the bug that the density of gas proportional to the pressure does not consider in the calculation of the Gas Head Correction. 	
APC V03.14	1. Fixed a problem that the transmitter often disconnected when Communication with some type of HART transmitters.	
APC V03.15	<ol style="list-style-type: none"> 1. Fixed the bug that the reconnection mechanism does not work well when the internal module is not connected. 2. Adjust the automation running parameters of the pressure switch task to reduce test time. 	
APC V03.16	<ol style="list-style-type: none"> 1. Add prompt when battery voltage is abnormal; 2. Add the software watchdog; 3. Modify the HART underlying transceiver delay mechanisms to improve the compatibility of HART devices; 4. Add Zeroing prohibition for External absolute pressure module; 5. Add support for pressure units mH2O; 6. Solve the problem of the loss of calibration data models when the internal pressure module calibration; 	

APC V04.XX		
Version	Updates	Note
APC V04.00		Use the Additel/Terminal to update the ADT761-LLP or ADT761-D

APC V04.01	No records	
APC V04.02	No records	
APC V04.03	1. Fixed the language missing problem. 2. Added to support the V6 and V7 of HART protocol, refactored some HART adjustment functions, added the sensor trim function and supported the updates of HART DD files.	
APC V04.04	Not released officially	
APC V04.05	1. Added the range setting for pressure switch tasks, and added the manually adjust rate and control rate. 2. Added the setting to choose if auto zeroing pressure. 3. Added the inlet pressure faults testing function and fault codes displaying. 4. Added the internal pressure modules units recognizing and reading conversion functions. 5. Amended the data reception mechanism for HART protocol stack. 6. Solved a setting problem of 761-LLP that setpoint 1 inH2O will change to 0.999999 automatically. 7. Improved the pressure stable speed of 761-LLP, and limited its min fluctuation to 0.05Pa, and altered to control zero point from just venting to atmosphere.	
APC V04.06	1. Fixed the bug that when start the HART, the system response will be delayed when controlling pressure. 2. Fixed the bug that when doing the HART sensor trim, the pressure units converting are incorrect which will cause the faulty of sensor trim. 3. Added the codes of modifying the internal pressure module communication baud rate. 4. Added the factory calibration function for pressure modules. 5. Changed the Flash driver to be compatible with the new flash chip. 6. Refactored the corresponding relations between the products models and firmware versions. 7. Added the hardware version information in the " Products information" section.	Refactored the products models and firmware versions. Added the firmware version of APC V04.06 (APC-LLP V02.04.03.02)
APC V04.07	N/A	Use Additel/Terminal to update.
APC V04.08	1. Added the running log record function to record the realtime data to support the diagnoses. 2. Added the instruction starting up mode when use the adaptor to supply power. 3. Fixed the bug of promoting information error judgment when there is leakage problems. 4. Changed the setting to close solenoid valve between pump and air chamber when the pump is stop, to avoid the pump repetitively restarting if there is leakage happened.	
APC V04.09	1. Fixed the problem that the customized 250kPa module have inlet pressure abnormal misdeclaration.	
APC V04.10	1. Added the zeroing function for absolute type, and added the venting delay and judgment for the pressure change rate when doing the gauge zeroing. 2. Added some serial commands for HART connection and pressure sensor calibration. And Fixed restoring factory reset failure problem when doing the Rosemount transducer pressure sensor calibration. 3. Altered the ADT761-D/L pump starting control mode to stop the pump when the inlet pressure is stable, to prevent the faults caused by the mismeasurement of Inlet pressure sensor. And shortened the starting time of ADT761-L/D/M, by canceling the inlet pressure measurement zeroing. 4. Fixed the the problem of the pump will continuously start and stop if the the external chamber is too big, the control mode is changed to when the pressure is approaching the desired point the pump will be stoped. 5. Extended the zeroing time from 6s to 12s. 6. Altered the codes of 761-LLP to make it compatible to the 250kPa high pressure custom made models.	
APC V04.11	1. Altered the fine adjust mode from reverse calibration control to setting points control, and improved the fine adjust operation and pressure controlling. 2. Added some serial commands for D/A Trim, Zero Trim of Hart. 3. Fixed the problem that when doing the differential pressure tasks, if not used the absolute pressure mode, the settings on set point cannot be stored	
APC V04.12	1. Altered the CPV commands, added the command parameter "1" to go back to main interface. 2. Added the optional width of 4 for external pressure module display. 3. Fixed the bug that the Absolute pressure setting is disappeared, and altered the switch damping time from [0.1, 99] to [0.1, 20] 4. Added special processes for E+H Deltabar S and Cerabar S sensor calibration commands, for supporting their transducer's sensor calibration.	Added hardware versions APC-HP V03.03.03.04 and APC-HP V03.04.03.04
APC V04.13	Altered the Self-tune parameter range, to prevent the misdeclaration.	
APC V04.14	1. Fixed the bug that the stability parameters was mistakenly changed in the event of abnormal auto-tuning.	
APC V04.15	1. Increases the battery fault tips. 2. Increase the battery voltage chip diagnostic functions. 3. Fixed the bug that the instructions of ""R: OALLCTRLDATA"" and ""W: OHARTPARASET"" executed error.	
APC V04.16	1. Fixed a problem that the transmitter often disconnected when Communication with some type of HART transmitters. 2. Fixed the bug that the decimals of the data displayed in the test process and test results are incorrect when using the Pa unit in the pressure transmitter	
APC V04.17	N/A	

APC V04.18	1.Fixed the bug that the reconnection mechanism does not work well when the internal module is not connected. 2.Adjust the automation running parameters of the pressure switch task to reduce test time. 3. Increased inH2O@ 4℃、 mmH2O@ 4℃ and hPa Units in HART;	
APC V04.19	N/A	
APC V04.20	1. Add prompt when battery voltage is abnormal; 2. Add the software watchdog; 3. Modify the HART underlying transceiver delay mechanisms to improve the compatibility of HART devices; 4. Add Zeroing prohibition for External absolute pressure module; 5. Add support for pressure units mH2O; 6. Solve the problem of the loss of calibration data models when the internal pressure module calibration;	
APC V05.XX		
Version	Updates	Note
APC V05.00		Use the Additel/Terminal to update ADT761-L/LA/M/MA/H/HA
APC V05.01	No records	
APC V05.02	Not released officially	
APC V05.03	1.Solved the language missing problem. 2.Added to support the V6 and V7 of HART protocol, refactored some HART adjustment functions, added the sensor trim funtion and supported the updatings of HART DD files.	
APC V05.04	Not released officially	
APC V05.05	1. Added the range setting for pressure switch tasks, and added the manually adjust rate and control rate. 2. Added the setting to choose if auto zeroing pressure. 3. Added the inlet pressure faults testing funtion and fault codes displaying. 4. Added the internal pressure modules units recognizing and reading convection functions. 5. Amended the datas reception mechanism for HART protocal stack. 6. Derease the filter coefficient of the pressure displaying.	
APC V05.06	1. Fixed the bug that when start the HART, the system response will be delayed when controlling pressure. 2. Fixed the bug that when doing the HART sensor trim, the pressure units converting are incorrect which will cause the faulty of sensor trim. 3. Added the codes of modifying the internal pressure module communication baud rate. 4. Added the factory calibration funtion for pressure modules. 5. Changed the Flash driver to be compatible with the new flash chip. 6. Refactored the corresponding relations between the products models and firmware versions. 7. Added the hardware version information in the " Products information" section.	V02.04.03.04。 Refactored the products models and firmware versions.
APC V05.07	N/A	Use Additel/Terminal to update ADT761-L/LA/M/MA/H/HA
APC V05.08	1. Added the runnging log record funtion to record the realtime data to support the diagnoses. 2. Added the instruction starting up mode when use the adaptor to supply power. 3. Fixed the bug of promoting information error judgment when there is leakage problems. 4. Changed the setting to close solenoid valve between pump and air chamber when the pump is stop, to avoid the pump repetitively restarting if there is leakage happened. 5. Altered the starting control mode of 761-M to not stop the pump untill the inlet pressure is stable, to prevent the fault caused by the inlet pressure sensor is mismeasurement.	
APC V05.09	1.Added the zeroing function for absolute type, and added the venting delay and judgment for the pressure change rate when doing the gauge zeroing. 2. Added some serial commands for HART connection and pressure sensor calibration. And Fixed restoring factory reset failure problem when doing the Rosemount transducer pressure sensor calibration. 3. Altered the ADT761-D/L pump starting control mode to stoped the pump when the inlet pressue is stable, to prevent the faulties casused by the mismeasurement of Inlet pressure sensor. And shortened the starting time of ADT761-L/D/M, by canceling the inlet pressure measurement zeroing. 4. Fixed the the problem of the pump will continuously start and stop if the the external chamber is too big, the control mode is changed to whne the pressure is approaching the desired point the pump will be stoped. 5. Extended the zeroing time from 6s to 12s.	
APC V05.10	Not released officially	
APC V05.11	1.Altered the fine adjust mode from reverse calibration control to setting points control,and improved the fine adjust operation and pressure controlling. 2. Added some serial commands for D/A Trim, Zero Trim of Hart. 3.Fixed the problem that when doing the differential pressure tasks, if not used the absolute pressure mode, the settings on set point cannot be stored normally.	
APC V05.12	1. Fixed the problem of the dispalying low pressure range is incorrect when the unit is "psi" and under absolute pressure model.	

APC V05.13	Not released officially	
APC V05.14	<ol style="list-style-type: none"> 1. Altered the CPV commands, added the command parameter"1" to go back to main interface. 2. Added the optional width of 4 for external pressure module display. 3. Fixed the bug that the Absolute pressure setting is disappeared, and altered the switch damping time from [0.1, 99] to [0.1, 20] 4. Added special processes for E+H Deltabar S and Cerabar S sensor calibration commands, for supporting their transducer's sensor calibration. 	Added the Hardware version APC-HP V03.03.03.04 and APC-HP V03.04.03.04.
APC V05.15	Not released officially	
APC V05.16	<ol style="list-style-type: none"> 1. Fixed the problem that the protection does not operate when pump overcurrent. 2. Fixed the bug that the positive pneumatic error into the negative pressure chamber when shutdown the calibrator. 3. Fixed the bug that the stability parameters was mistakenly changed in the event of abnormal auto-tuning. 	
APC V05.17	Not released officially	
APC V05.18	<ol style="list-style-type: none"> 1. Increases the battery fault tips. 2. Increase the battery voltage chip diagnostic functions. 3. Fixed the bug that the instructions of ""R: OALLCTRLDATA"" and ""W: OHARTPARASET"" executed error. 4. Fixed the bug that the boot progress bar displays not right. 5. Fixed the problem that the inlet pressure calibration can't be passed in some range of the calibrator. 	
APC V05.19	<ol style="list-style-type: none"> 1. Fixed a problem that the transmitter often disconnected when Communication with some type of HART transmitters. 	
APC V05.20	<ol style="list-style-type: none"> 1.Fixed the bug that the reconnection mechanism does not work well when the internal module is not connected. 2.Adjust the automation running parameters of the pressure switch task to reduce test time. 	
APC V05.21	Not released officially	
APC V05.22	Not released officially	
APC V05.23	<ol style="list-style-type: none"> 1. Add prompt when battery voltage is abnormal; 2. Add the software watchdog; 3. Modify the HART underlying transceiver delay mechanisms to improve the compatibility of HART devices; 4. Add Zeroing prohibition for External absolute pressure module; 5. Add support for pressure units mH2O; 6. Solve the problem of the loss of calibration data models when the internal pressure module calibration; 	
APC V05.24	<ol style="list-style-type: none"> 1. Add "Ultra-low speed" mode for switch test; 2. Add external barometer sensor function (only for 761-LA, -MA, and -HA); 3. Add low pressure module protection during venting process. 	
APC V05.25	<ol style="list-style-type: none"> 1. New firmware for main board upgrade 	
APC V05.26	Not released officially	
APC V05.27	Not released officially	
APC V05.28	<ol style="list-style-type: none"> 1. Fixed HART document receiving miss problem which leads to connection losing when 761 is in processing,; 2. Added inH2O@20°C and mmH2O@20°C two new pressure unit (except for -BP); 3. Fixed long pressure unit display error in HART screen, main screen, task, and leakage test screen; 4. Expanded auto tune failure determination time. 5. Fixed the bug that the stability parameters was mistakenly changed during the exiting of abnormal auto-tuning. 	
APC V05.29	Not released officially	
APC V05.30	<ol style="list-style-type: none"> 1. Added real-time pressure display under "Information" -> "High Pressure Range" & "Low Pressure Range" 2. Optimized 24V power operation method 3. Support YOKOGAWA-EJX(0x3751) HART transmitter calibration 4. For 761 -HHP, added external pressure module "absolute" & "gauge" mode switch function which is controlled under test program requirement 5. Optimized switch test method 6. Optimized battery protection program 	
APC V05.31	Not released officially	
APC V05.32	Not released officially	
APC V05.33	Not released officially	
APC V05.34	Not released officially	

APC V05.35	<ol style="list-style-type: none">1. Modified the pressure unit conversion coefficient to keep up with 760 and 7802. Added calibration commands for new supported pressure transmitter such as Rosemount 3051S, YOKOGAWA EJX, 0xA67C Shanghai, etc.. And upgrade the DD library to V00.073. Modified the automatic vent function for -D and -LLP (only available for positive pressure):<ol style="list-style-type: none">(1) 761 will control to 0 point if both of the set point and vent pressure are set to 0(2) 761 will control to the vent pressure value first then open to atmosphere if the set point is 0 and the vent pressure is greater than 0(3) 761 will open to atmosphere directly if press on Vent button4. More changes for -BP model:<ol style="list-style-type: none">(1) Changed the repeatability error to return error calculation(2) Support WUSH-TP300 sensor(3) Added commands for PTB300 RUN mode (continuous upload mode)	
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