

# Partlow

## Upgrading to the *Plus* Series

The Partlow 1160 controller has been upgraded to include some new features designed to simplify application of the product and reduce installation time. Users will welcome the automatic recognition of installed option modules and increased flexibility; those familiar with the previous version will appreciate the backwards compatibility allowing installation into existing applications with minimal changes. The instruction sheet provided with the new controller shows how to use the improved interface, but for those used to the previous version, here is a summary of what has changed.

1. **Installation:** Unchanged.
2. **Wiring:** Unchanged. Replacement units can be retrofitted into old case without rewiring.
3. **Input, Output and Option configuration.**
  - a. No jumpers fitted anymore.
  - b. Plug-in Option modules, similar to previous model, but are now auto-detected, removing the need for “Hardware Define” mode.
  - c. Output 1 is now a plug-in module, not fixed build.
  - d. Old modules cannot be used with new controller.
4. **Operator Mode:** Unchanged.
5. **Select Mode (New):** Provides easy access to the Configuration, Setup, Automatic Tuning and Product Information modes.
6. **Configuration Mode:**
  - a. Easier access via Select Mode (power on/off cycle no longer required).
  - b. Improved security (access now protected by lock code).
  - c. Input code numbers replaced by clearer legends. Eg J type T/C with decimal point, code was “1415”, now J.C
  - d. Thermocouple and RTD ranges can now be scaled. For existing applications the user can set the Scale Range Upper and Lower limits match the previous range limits.

Eg: to match old range code “1415”, set upper limit to 205.4°C and lower limit to 0.0°C. Previous tuning terms can then be used without alteration.
- e. Alarm values can now be entered whilst in Configuration mode as well as Setup mode. For many simple applications, entry into Setup mode may not be required to complete installation.
- f. Users of serial communications can now select the protocol (ASCII or Modbus).
- g. Digital Input can now be used for auto/manual mode selection as well as setpoint 1 or 2 selection.
7. **Setup Mode:**
  - a. Easier access via Select Mode
  - b. Largely unchanged, some changes to display legends used.
8. **Automatic Tune Mode (New):**
  - a. Allows easy selecting/deselecting of Pre-Tune, Auto Pre-Tune and Self-Tune
  - b. Clear On/Off indication
  - c. Improved security (access protected by lock code).
9. **Product Information Mode (New):**
  - a. This mode allows easy access to information about the manufacture and hardware configuration of the unit.
  - b. No adjustments are required as this mode is for information only.