

RL20 PC Interface instructions

Possible PC ports

RL20 can interface to your PC via its **LPT** (parallel) port if fitted or via its **USB** port.

For interfacing via the **LPT** port you will need **CSM interface cable** (part no. **CSM0015**). This is supplied with ICG360, ICG540, SL560 and SL720 gyros and is available as a separate item. If you already have one of these cables you need only download the RL20 interface software from our website (www.rcmodels.org/csm) to make use of the PC interface capability of RL20 - no further purchase will be necessary.

For interfacing via your computer's **USB** port you will need the **CSM USB interface adapter** (part no. **CSM0049**). This adapter is also compatible with the SL560 and SL720 gyros.

CDs with the necessary software and installation instructions are supplied with the cable and the adapter.

Software installation

To install the RL20 interface software simply run "**install RL20_100.exe**" either as downloaded from our website or from the CD supplied with the interface cable or USB adapter, and follow the on screen instructions. The installation program will place a shortcut to the interface application on your desktop.

Basic instructions for using the interface software.

Please note: in the interests of safety to prevent adjustment of the parameters with the engine running, **the RL20 will only communicate with the PC during the sensor test time (with the sensor test light flashing).**

Double click on the **RL20 shortcut** on your desktop.

Power up the governor.

Connect the 3 pin connector of the interface cable or the USB adapter to the PC port of RL20 (make sure the black wire is closest to the bottom edge of the unit.)

Select the appropriate **PC to governor port** (LPT 1 to 4 or USB).

Click on the "**Read from Governor**" button to download the current settings to the PC and display them.

Edit the parameters as required.

Click the "**Write to governor**" button to upload the new values to the unit (or quit to ignore changes).

If needed click the "**Reset to default**" button to restore the unit to the factory default settings.

Note: the parameters set during the basic setup procedure are displayed in the centre panel of the interface window but cannot be edited via the PC interface and are not affected by the "Return to default" button.

Tuning RL20 in governor mode

To discover how to use the PC interface to tune your helicopter please refer to the **RL20 Tuning quick reference guide** (overleaf) and the **RL20 advanced guide (on the CD)**.

Use of the RPM limiter option

By default RL20 operates as a full RPM governor in all its modes and this is the mode we would recommend in most situations. However, where desired, any of the modes (manual, Mode A, and Mode B) can be made to have just RPM limiter action (see the **RPM control action** buttons under each mode heading of the interface screen) . With this option selected RevLock will only close the throttle below the opening provided by the throttle curve in the transmitter to prevent overspeeding. It will not open the throttle above the throttle curve value in under speed situations.

Generally, in limiter mode you will want to run somewhat higher **Proportional Gain** than in governor mode (because the integral term is inactive in this mode). Increase the Proportional Gain to 130% for initial flight tests.