

Electronic Tool Tip #27 – HS-02B Soldering Iron

Not very long ago, I had the need for an *extremely* fine-tipped soldering iron. I needed this iron to be able to reach into a very tight area and solder some leads on a switch that I could barely see, let alone freely access. I am not much of a believer in spending money that I don't have to, but in this case, I had absolutely no means of soldering these leads with any tool that I owned. This set me to looking for an easy answer to the problem – a new (naturally) soldering iron with a tiny tip, but one that was long enough to reach where I needed it to reach.

I had some definite requirements in mind... adjustable temperature, portability, and interchangeable tips as starters. I went on an online search, and I found several possible candidates. Having used some of their products in the past, I settled on the HS-02B iron from FNIRSI. I chose this iron largely because of good experience with the FNIRSI products that I already own, but also because it checked off all of the boxes.

This compact little iron is a mere six inches long overall. It is rated at one hundred watts, which is amazing for such a compact iron. It comes with three push-in swappable tips: a curved point (HS-02B-IS), a straight point (HS-020B-I), and knife blade (HS-02B-K) style. Each tip is packed in its own protective case, in which it is held securely. It should be noted that the tips for this iron are *not* interchangeable with those for the model HS-02A iron from FNIRSI, which is not quite as capable as to time or temperature, though it *does* come with an assortment of six different tips. Replacement tips are interchangeable with the JBC C210 tip series.

This device operates on 9-20VDC, easily supplied by the PD/QC power supply that is shipped with the iron. Temperature is adjustable, with three presets, from 212°F to 842°F (units are selectable to either °C or °F), and all operation is viewed on the 0.96" IPS screen incorporated into the handle. Control is via three pushbuttons on the handle, with "long" and "short" presses causing differing actions. Firmware is upgradeable via a simple USB connection to a PC, and the connection to the iron is via a Type C connector. A DC-barrel to Type C adapter cable is provided should the user choose to use a wall-wart type of power supply other than that which is supplied, which is a bit oversized, but also includes a 230V European-style plug in addition to the standard US plug. Heating time is quite rapid, taking only a matter of seconds. The HS-02B ships with a carrying case, but the power supply and cable do not fit into the case and must be carried separately. A folding stand and cleaning sponge are supplied. The iron is of CNC-machined anodized aluminum alloy construction with a comfortable silicone rubber grip.

The unit features a sleep mode, a child lock, and automatic power-off. While this iron is not operable as a cordless device, it nonetheless is quite handy and it did the job perfectly the first time. Of course, as with *any* soldering iron and new tips, it is important to properly "season" the tip by initially heating it to about 500°F and tinning the tip carefully, cleaning it off on a damp (but not wet) sponge. While you are at it, tin all three tips, so that you do not forget later. Failure to perform this step properly will render any tip for any soldering iron useless in short order.

This product is available online from Amazon at a price of \$85.99 (USD) plus shipping. Of course, the government has to get its share, so tax will also be applied. Point your browser to <https://www.amazon.com/dp/B0D9LTCDRR> if you want to investigate this item for yourself.

