

# FINDING IT ON THE NET



## Hardware and Panel Trim Parts

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**L**ocating and correctly identifying mechanical parts, panel trim and hardware (especially approved parts) is quite difficult during the design phase and for installers and completion centers. This month, let's look at where to find those elusive hardware items, including the many esoteric and unusual ones really making you crazy.

Let's start with some basic AN/MS/NAS and assembly/installation hardware:

Have a look at Fastener Dimensions for both a visual index and as a source for available parts: [www.fastenerdimensions.com/index.html](http://www.fastenerdimensions.com/index.html).

Global Fasteners has a detailed listing of AN/MS/NAS hardware: [www.globalfasteners.com/military.htm](http://www.globalfasteners.com/military.htm).

The Engineers Edge has an online visual index of hardware; also from this site, you can download and store the PDF visual lookup tables for hardware from its search pages, which is handy for local reference and staff training: [www.engineersedge.com/quickguide\\_mil.htm](http://www.engineersedge.com/quickguide_mil.htm).

The most incredible downloadable resource is from East Coast Aviation Supplies Inc.; it has a 205-page detailed data catalog on AN/MS/NAS hardware: [www.ecasinc.com/pdf/ECAS\\_Catalog\\_Final.pdf](http://www.ecasinc.com/pdf/ECAS_Catalog_Final.pdf).

Its main website is at [www.ecasinc.com](http://www.ecasinc.com).

Need to see an index of MIL standards, federal standards or other common specifications to identify something? Try this site from the Defense Supply Center Columbus: [www.dscc.dla.mil/Programs/MilSpec](http://www.dscc.dla.mil/Programs/MilSpec).

Need custom hardware, aluminum spacers or stand-offs? Try RAF Electronic Hardware; it has a vast selection of standard and semi-custom hardware, and can solve many difficult assembly and design problems for you: [www.rafhwe.com](http://www.rafhwe.com).

Try these two distributors for quick installation hardware sourcing: EDMO at [www.edmo.com](http://www.edmo.com) and Dallas Avionics at [www.dallasavionics.com](http://www.dallasavionics.com).

### Display Filters

Are you making something that needs a display filter? Because Polaroid no longer directly sells polarizing contrast filter material (although it is available through 3M), try these other sources for display filters:

API American Polarizers Inc. has circular polarizers, rotating filter aircraft windows and glare reduction filters: [www.apioptics.com](http://www.apioptics.com).

In the U.K., Optical Filters Ltd. offers conventional display filters and EMI shielding types: [www.opticalfilters.co.uk](http://www.opticalfilters.co.uk).

If you used OCLI optical filters but can't find them now, you need to know the company has merged with JDSU; its optical display filters are at: [www.jdsu.com/products/custom-optics.html](http://www.jdsu.com/products/custom-optics.html).

My personal favorite remains Astra Products, which makes Clarex, an acrylic sheet that looks invisible, has no glare and can incorporate EMI shielding, IR shielding and coloring. You can find it at: [www.astraproducts.com/index.asp](http://www.astraproducts.com/index.asp).

### ANVIS Filters

Do you need to get some ANVIS/NVG display or lamp filters? Well, keep in mind these now are restricted materials.

Wamco has one of the broadest offerings of filters and lamps; it also offers all kinds of optical display filters: [www.wamcoinc.com/filters/night\\_vision\\_filters\\_and\\_nvis\\_filters\\_tool\\_kit.htm](http://www.wamcoinc.com/filters/night_vision_filters_and_nvis_filters_tool_kit.htm).

Korry Electronics offers ANVIS filters: [www.korry.com/products/nightshield](http://www.korry.com/products/nightshield).

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*Copies of this information can be found at Sphere Research ([www.sphere.bc.ca/test/data.html](http://www.sphere.bc.ca/test/data.html)) and in the Avionics News archive ([www.aea.net/AvionicsNews](http://www.aea.net/AvionicsNews)). If you have comments or questions about this article, send e-mails to [avionicsnews@aea.net](mailto:avionicsnews@aea.net).*

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If you need thin-film IR-blocking filter material for your ANVIS work, have a look at CPFilms Inc., which makes some fairly amazing PDP2P IR-blocking film (this film can be bonded to the substrate for lighted overlays to make inexpensive ANVIS filters): <http://cpfilms.com>.

### Elegant and Illuminated Knobs

Ever wondered where to get those interesting trans-illuminated control knobs (including standardized MS numbers) for your panel layouts?

The biggest selection comes from Electronic Hardware Corp.; it also has all those standard military knobs we used to source from Raytheon and a rich assortment of front panel trim parts: <http://ehc-knobs.com>.

You also can get trans-illuminated knobs from Korry Electronic; it provides detailed mechanical data to help you plan layouts (these control knobs are lit simply by putting an illuminated white island on the faceplate under the knob, allowing the panel illumination to travel up to the knob surface): [ww.korry.com/products/knobs](http://ww.korry.com/products/knobs).

Do you want knobs with a "gripper" surface for a tactile feel? Try Rogan; it offers both regular and soft-touch styles, as well some attractive parts: [www.rogancorp.com/control\\_knobs\\_levers.html](http://www.rogancorp.com/control_knobs_levers.html).

### Lighted Overlays

Do you need a lighted front panel overlay for a new system or installation? Maybe something with complex graphics and filtered display windows?

Try Ampco Grafix; it makes every possible kind of label and overlay with fast turnaround and good prototyping services (I have used them for some very difficult cockpit designs): [www.ampcomfg.com](http://www.ampcomfg.com). □