

Replacing the Yanmar Control Panel Decal on *Rusalka*

08/06/2022

On *Rusalka*, our HR40, the engine control panel is a Yanmar C-Type Instrument Panel:

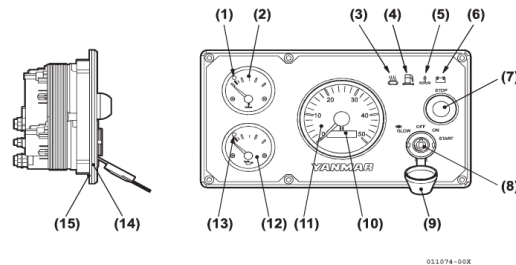


Figure 12-9

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|--------------------------------------|---|
| 1 – Coolant High Temperature Alarm | 9 – Moisture Cap For Key Switch |
| 2 – Coolant Temperature Meter | 10 – Hour Meter |
| 3 – Seawater Insufficient Flow Alarm | 11 – Tachometer |
| 4 – Water In Fuel Filter Alarm | 12 – Lubricating Oil Pressure Meter |
| 5 – Water In Sail Drive Seal Alarm | 13 – Lubricating Oil Low Pressure Alarm |
| 6 – Battery Low Charge Alarm | 14 – Panel With Cover Foil |
| 7 – Stop Button Switch | 15 – Rubber Seal, C Panel |
| 8 – Key Switch | |

The standard panel is rotated 90° to fit on the pedestal. Temperature, Oil Pressure and Tachometer dials are each rotated in their holes to be properly vertical for viewing. The fascia is replaced with a custom one that is appropriate for the new orientation. The panel is plastic and the black fascia is a stick-on decal. The decal degraded in the harsh, salty, UV sunlight environment.



*Original panel before removal
held together with electrical tape*

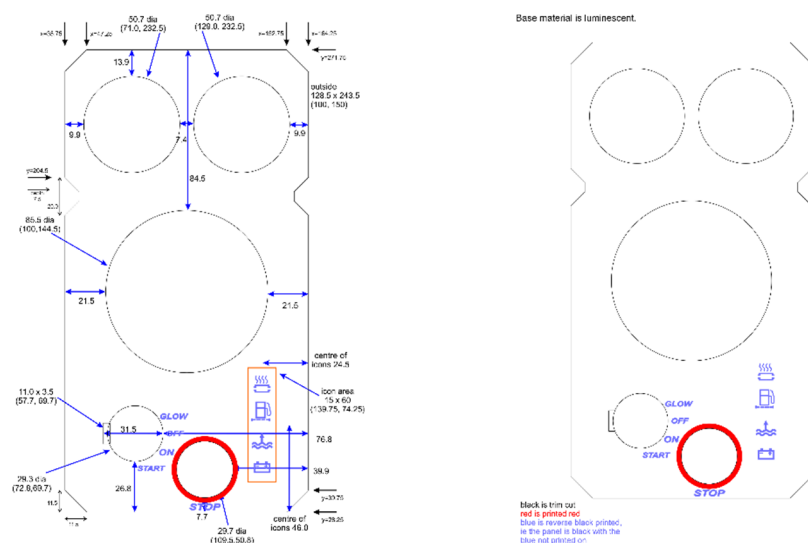
It was impossible to get a new decal from either Yanmar or HR Parts so I decided the get one custom made.

It was best to work on the panel by first removing it from the pedestal. Six screws hold it in place on the pedestal and the wires at the back just unplug. I removed the old decal, trying not to break it into multiple pieces so that I could measure it up later as accurately as possible.



Original facia (decal) after removal

After measuring, I drew a replacement facia (decal) and sent off the file to a sign manufacturer for them to make it.



Dimensions (left) and artwork (right) sent to sign manufacturer

The sign manufacturer made the decal from Orojet 3930 material. This is a self-adhesive, self-luminous, glow-in-dark, vinyl from Orofol, typically used for indoor and outdoor marking of emergency exits and dangerous locations. The glow-in-dark has not been of value so is not necessary.

The panel is printed black everywhere except 1) the red ring around "STOP" and 2) text and graphic icons are left unprinted (ie not black so they show white/opaque to be able to be read or for rear light indicator illumination). The red ring is printed red. The black lines on the artwork indicate where the decal material is to be cut.

Before applying the decal to the plastic control panel, ensure the plastic is thoroughly clean with absolutely no residual material as it will clearly show is small bumps under the new stick-on decal. Finally clean up with isopropanol or acetone.

To put it on, very carefully line up the new decal, beginning at one side (eg left), unpeeling the backing sheet while pressing the sticky adhesive down, and progressing to the other side (right). This is perhaps the trickiest part, getting it lined up extremely accurately. I got 3 decals made up just in case I messed up applying it. But fortunately it worked first go!



The engine panel with the new facia decal

It has now been in place for 5 years and over 10000 nautical miles and still looks like new.

The layout of the decal was produced in Corel Draw and exported to pdf (the version "panel12b" files are the final versions). The dimensions of the artwork in pdf format at 1:1 scale were acceptable to the manufacturer so they didn't need any written dimensions. The files in "panel12b.zip" are:

- panel12b - colour fill - what it should finally look like.pdf
- panel12b includes dimensions.pdf
- panel12b includes image of original and dimensions.pdf
- panel12b production artwork.pdf

The first and last files were sent to the sign manufacturer. The instructions are on the last file and the first file is just to give the manufacturer a view of his final product.