

## Contents

1. Description
2. Safety Information
3. Operating Instructions and Display
4. Transport, Storage, Installation
5. Electrical Installation
6. Power-Up, Maintenance
7. Enclosure

### 1. Description

The instrument panel IT 992 is used to control the electrical functions of the living-room area.

It is part of a system consisting of a EBL with charging unit, complete 12V distribution and alternatively rod tank sensors or tank sensors for filling level measurement of the water tanks. Filling level measurement has exclusively been designed for plastic tanks.

#### 1.1 Suitable Accessories (not supplied)

<b>energy system</b>	EBL 99 and it's models and 1x panel cable, 9 x 0,5
<b>rod tank sensors</b>	2x rod tank sensor and 2x seal ring, art.nr. 126.007 (possibly 2x checknut, art.nr. 102.109) 2x sensor cable 5 x 0,5
<b>or tank sensors</b>	10x tanksensor, art.nr. 933.663 2x sensorcable 5 x 0,5

#### 1.2 Technical Data

<b>operating voltage</b>	12V (10 -14.5V), power supply by energy management system
<b>sizes</b>	110 x 304 x 45 incl. connectors (H x W x D in mm)
<b>front panel</b>	aluminium, powder painted
<b>colour</b>	see enclosed table of measurements

### 2. Safety Information

- \* The electrical installation of the motorhome has to be in accordance with current DIN, VDE and ISO regulations. Manipulations will endanger the safety of persons and the vehicle. Due to the above mentioned regulations and safety rules, manipulations are therefore prohibited.
- \* The instrument panel IT 992 must not be modified.
- \* The connection of the instrument panel has to be done by qualified personel only.
- \* In the following text special notice should be paid to the signs shown below:



#### **CAUTION !**

Electrical current hazard warning.



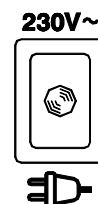
#### **CAUTION !**

General hazard warning.

### 3. Operating Instructions and Display


#### 230V Mains-Supply Indicator


If yellow LED '230V~' lights up the energy system is connected to mains supply. See user's manual of energy system, section 6.1 'To Put Into Operation'.



Turn on and off 12V supply of living area

actuate switch with '12V' symbol ...

... in direction of  ' 12V ' symbol ...  
① 12V supply of living area is turned on.  
Green indicator lamp is on.

... in direction of  ' 12V ' symbol ...  
① 12V supply of living area is turned off.  
Green indicator lamp is off.

Note: The circuits heater, reserve output 4, base light/automatic step are not switched by 12V main switch. They are operative even if 12V supply is switched off.  
Only after a energy system shut-down by the battery cut-off switch or after a battery change do this circuits need to be switched on by actuating 12V-main switch once.





**Caution !**

To avoid **unnecessary discharge of the camping battery** the 12V supply should be switched off when leaving the vehicle.






Inquiry of battery voltage

Continous indication of battery voltage from 10 to 15 Volts by 'V / Tank'- instrument (upper scale).  
Automatic illumination when used.

Actuate switch in direction of  ' ① Starter battery voltage is indicated.

Actuate switch in direction of  ' ① Camping battery voltage is indicated.

**3.1 Evaluation of 'Battery Voltage'**

battery voltage	vehicle ...		
	... is parked, without mains supply, <b>runs on battery</b>	... is driving, <b>mobile</b>	... is connected to mains supply, <b>runs on 230V</b>
≤11.0V	<u>no load:</u> battery discharged  <u>on load:</u> battery possibly overloaded <u>caution:</u> low-level discharge!	<u>no charge</u>  or <u>12V-system overloaded</u> <u>caution:</u> low-level discharge!	<u>no charge</u>  or <u>12V-system overloaded</u> <u>caution:</u> low-level discharge!
11.1V to 13.2V	<u>standard operation</u> if at rest * it goes approx.: <12V: battery discharged >12.8V: battery full	<u>bad charging</u> (if for longer time) or <u>12V-system overloaded</u>	<u>bad charging</u> (if for longer time) or <u>12V-system overloaded</u>
13.3V to 13.7V	is allowed to happen only right after driving or on mains supply	<u>battery is being charged</u>	<u>battery is being charged</u>
13.8V to 14.4V	impossible	<u>battery is being equalize charged</u>	<u>battery is being equalize charged</u>
>14.6V	impossible	<u>battery is being overloaded:</u> regulator of alternator defective 	<u>battery is being overloaded:</u> charger defective 

\* battery at rest means: The camping battery was not used for several hours. Possibly check voltage in the morning without any load. !! If battery voltage at rest is <12.0V it might be totally discharged !!



**Caution ! Battery Damage**

Low-level discharge might permanently damage the battery.

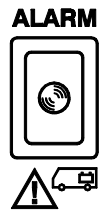
Red warning indicator 'Alarm' blinks

Optical warning at alarming low camping battery charge.

As soon as the camping battery voltage drops below 11.0V the red warning light 'Alarm' starts blinking. Any load should now be switched off immediately and the camping battery has to be recharged.

If camping battery voltage continues to sink and drops below 10.5V, the battery monitor module of the EBL switches all 12V load off.

See section 3.1 'Battery Voltages' and the respective sections of the EBL 'Battery Charge' and 'Battery Monitor Module'.



Display of charging current and discharging current of camping battery

The charging and discharging current of the camping battery is displayed permanently by the 'STROM'- meter.

The current meter is automatically illuminated by using the battery voltage- or filling level instrument.

Continous reading of indicating range from 30A discharge current (red range) to 'no current' (mid range) to 30A charging current (green range).

**Evaluation of 'charging and discharging currents'**

current reading	vehicle...		
	... is parked, without mains supply, <b>runs on battery</b>	... is driving, <b>mobile</b>	... is connected to mains supply, <b>runs on 230V</b>
red range	on load, discharge of battery	no charge ! too much load or alternator defective	no charge ! too much load or alternator defective
0 A	no load	battery fully (or nearly) charged if charging current decreases with no load (except refrigerator) from green range to zero	battery fully (or nearly) charged if charging current decreases with no load from green range to zero
green range	only possible with solar-power supply	battery is being charged, up to over 30A possible	battery is being charged, up to 16A possible (with additional charger up to 32A)

Inquiry of water tank filling level

Indication of water tank filling levels by 'V / Tank'-meter (lower scale) in steps of empty, 1/4, 1/2, 3/4 and full. Automatic illumination of the meter during inquiry.

Actuate switch in direction of  ® Filling level of fresh water tank is shown

Actuate switch in direction of  ® Filling level of waste water tank is shown

Note: Inquiry of watertank filling levels is for temporary use only. The utilized method of measurement is not suitable for continous running or prolonged inquiries.



**Caution !**

Continous running or prolonged testing will damage rod tank sensors or tank sensors.


Note: If the motor home is not on mains supply the power supply of the water pump should be turned off during extented periods of no use (eg. at night) as the pump relay has a load current of approx. 160mA. This adds up to about 4Ah battery drain per day.



**Caution !**

Creepage current discharge of camping battery with pump switch on.

### Switch on and off of awning light

Actuate switch in direction of 

Ⓜ Awning light is switched on

Actuate switch in direction of 

Ⓜ Awning light is switched off

Please see user's manual of motor home manufacturer

## **4. Transport, Storage, Installation**

### **4.1 Transport, Storage**

- \* The instrument panel should be stored and transported in a suitable packing and in dry environment only.
- \* Storage temperature range : - 10°C to + 50°C.

### **4.2 Installation**

- \* The instrument panel is designed for use in dry and sufficiently ventilated environment within a temperature range of - 10°C to + 45°C.
- \* It is designed to sink into a cabinet front and has to be fitted on to a stout and level surface by use of the six provided location holes. Please refer to enclosed table of measurements for mounting size details.

## **5. Electrical Installation**

- \* Electrical installation of the instrument panel has to be executed by qualified personnel only.
- \* Electrical connection on the backside of the instrument panel according to enclosed connection instructions.

## **6. To Put Into Operation, Maintenance**

### **6.1 To Put Into Operation**

- \* The instrument panel can be operated only in connection with a energy system and water tank filling level measurement accessories. See section 1.1 'Suitable Accessories'.
- \* After complete connection the instrument panel is operated by the EBL. The appliance is put into operation as by following sequence: Connect the EBL to mains supply, switch the battery cut-off switch into 'Ein'-position and actuate 12V main switch on instrument panel. The the yellow LED '230V~' lights up if the energy system is connected to mains supply. See user's manual 6.1 'To Put Into Operation'.

### **6.2 Maintenance, Malfunctions**

- \* The IT 992 is maintenance-free.
- \* For cleaning of the front panel use a soft moisturized cloth with a mild detergent (no methylated spirit, paint- thinner, etc.). Liquids must not be allowed to get into the panel.
- \* Should repairs be necessary, please contact the service department of Schaudt GmbH ph. 0049-(0)7544-9577-16, eMail: kundendienst@schaudt-gmbh.de
- \* If it is not possible to see the manufacturer for service (eg. being overseas), necessary repairs can be carried out by a qualified workshop.
- \* Unqualified repairs enforce expiration of warranty. The manufacturer Schaudt GmbH disclaims it's liability and is therefore not liable to resulting damages.

## 7. Enclosures

To this operating instruction manual belongs the enclosed the connection diagram and the dimension list to IT 992, art. nr. 930.420.

This operating instructions manual with all it's enclosures must be delivered together with the IT 992, art.nr. 911.420. It must be part of the instruction manual if it is part of a system installed in a motorhome.

### 7.1 EC declaration of conformity

We hereby certify that the type of construction of the instrument panel IT 992 corresponds accordingly to appropriate provisions:

Electromagnetic compabitibility guide line                      89/336/EWG mit Änderung 92/31/EWG

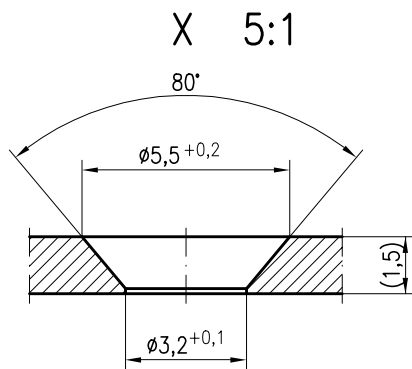
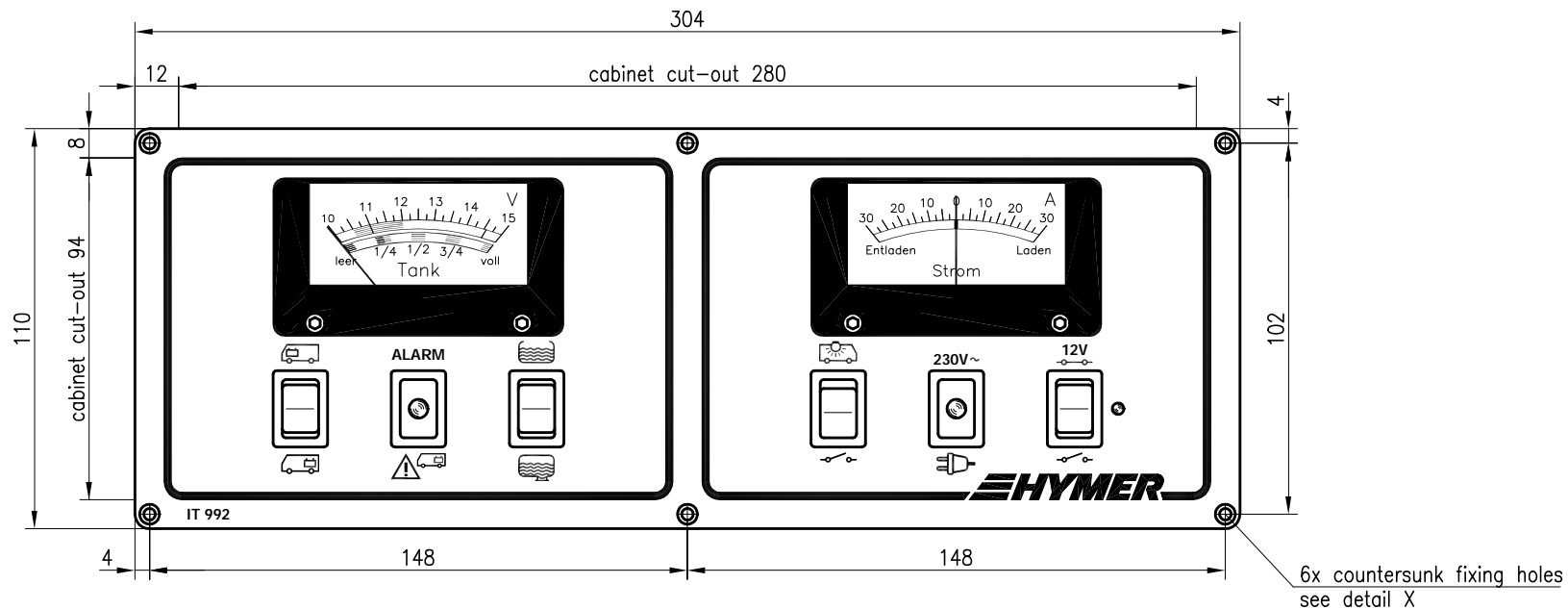
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The EC declaration of conformity in original is available and can be looked at any time.

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Manufacturer: Schaudt GmbH, Elektrotechnik & Apparatebau

Address:            Daimlerstraße 5  
                      88677 Markdorf  
                      Germany



mounting depth inclusive plug connections: 45mm

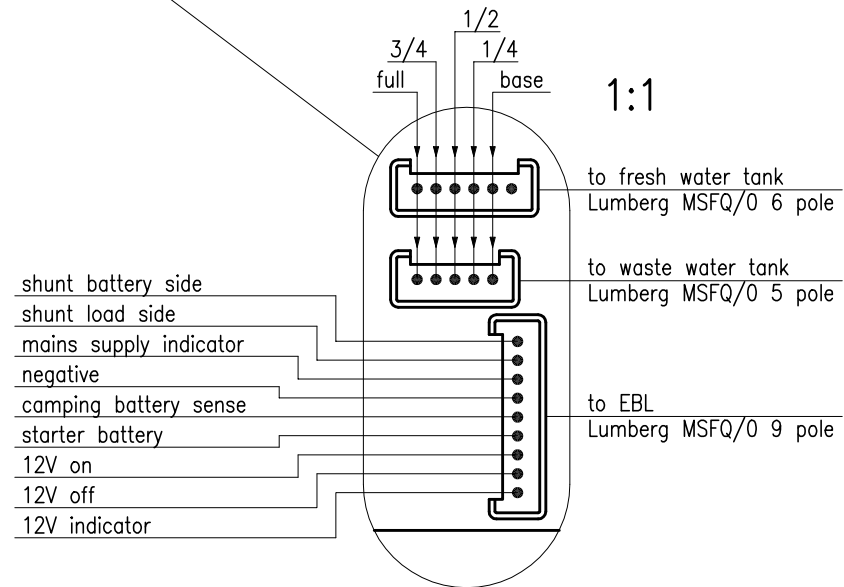
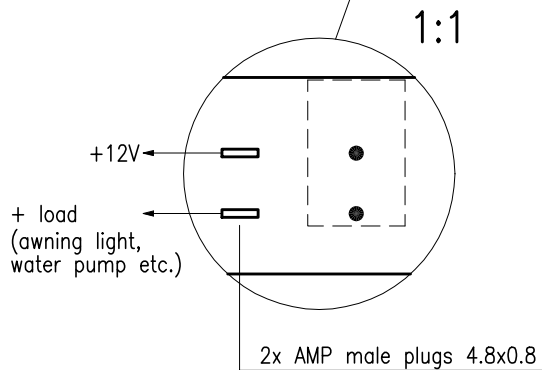
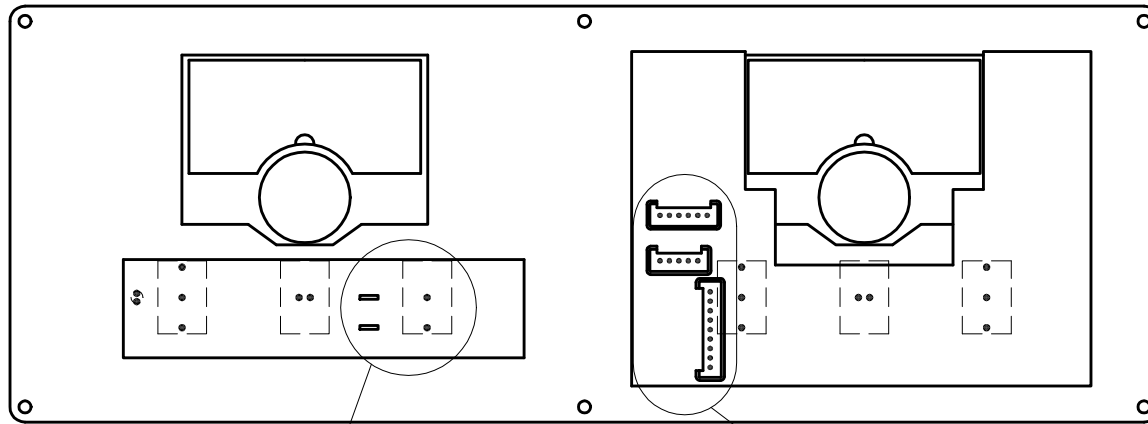
front panel: aluminium, powder painted  
 ground colour: titanium RAL 9007  
 print: graphite black RAL 9011

size 1:2

Änderungen nur über A-CAD!

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<b>Schaudt GmbH</b> Daimlerstraße 5 88677 Markdorf/Bodensee Postfach 1150 Telefon (07544) 9577-0		Datum	Name	table of measures instrument panel IT 992 Hymer	Art-Nr	930.420	Blatt	1
	Gez.	07.03.2001	Schliecker		Ablage	930420V1 En.	von	1
	Gepr.	08.03.2001	Hüttner					
	Gepr.							



size 1:2

Änderungen nur über A-CAD!

connection diagram  
instrument panel IT 992

Art-Nr

Ablage

93042x En.

Blatt  
1

von  
1

	Datum	Name
Gez.	07.03.2001	Schliecker
Gepr.	08.03.2001	Hüttner
Gepr.		