

SERVICE BULLETIN: # SB-70

DATE: 17 February 2021

TO: ALL CH77

AFFECTED PRODUCTS: CH77 Ranabot

SUBJECT: WARNING LIGHT DOORS

INSPECTION: NEXT PRE FLIGHT CHECK

REPLACEMENT: MANDATORY

COMPLIANCE PROCEDURE:

S/B 70 Planning/Information

Experience in the field has shown that the human factor and often cause of accidents, the use of the voice check list has been shown to significantly reduce forgetfulness in the procedures for start up on and turn off the helicopter, but despite there are many cases we have found of pilots take off with one door or both not closed, on this we report attention on the Safety Notice 25.10.2018

Helisport has developed a reliable light and voice warning system that warns if the door is open. even if only one of the 6 pins of the doors is not exactly in the seat, the system warns with 3 different ways. Red light on the "Doors" panel - Acoustic warning in the cabin - Voice warning in the headset. in case of flights without doors, the acoustic warning in the cabin and voice warning in the headset can be excluded by means of a switch on the main panel, but not the red light warning. the pilot activating the switch to disabled "doors disable" will turn on a red LED with the function of further alarm.

It is therefore mandatory to apply this bulletin which includes: Warnig Light Doors Open,

1.2 Subject:

WARNING LIGHT DOORS

1.3 Compliance

.Application request in the next pre-flight inspection

The application of the SB 70 must be in accordance with the installation instructions followed in section 3.

WARNING: Failure to follow this instruction may result in damage to the aircraft, personal injury or

death

2) Material-costs and availability

prices and availability will be provided by CH7 HELISPORT HELICOPTER, Authorized Sellers or CH7 SERVICE CENTER

2.1 The Company

Shipping costs, downtime, loss of income, telephone costs etc., labor, additional work, are not charged or reimbursed by CH7 HELISPORT HELICOPTER.

2.2 Material

Attention

before ordering the SB 70 kit material at Ch7 Helisport Helicopter read the attached document section 3, fill in the form attached to this bulletin for each helicopter

required parts:

Doors Warning Light kit:

qty-1 wiring assy

- 6 special pin

- 6 receptors assy

- 2 rubber grommet

- 2 male 6 pole connector

- 12 male crimp terminal

- 1 "Disable" sticker

Order in add qty -1 Led/Light panel display or qty 1 film labels Doors

2.4 special equipment / lubricated / glue / sealing compound.

black silicone adhesive

Rework of parts

NO

3) Instructions

this Service Bulletin can be applied by operators who have obtained written authorization and or followed the special installation course held by the technical manager Helisport Mr: Barbero Giuseppe.

To fully review the documentation to understand exactly the procedures and requirements to avoid errors, all measurements must be taken and confirmed within the following persons or structures:

CH7 HELISPORT HELICOPTER

CH7 SERVICE CENTER

people approved by CH7 HELISPORT HELICOPTER

list of authorized persons

All Staff Team Helisport Service Center Italy

Mr. Matthieu De Quillacq Mr. Jean-Denis Desplans Sarl Helisport France

Mr. Martin Gracka - Mamba Air

3.2) Put the aircraft back in its original operating configuration in accordance with the related construction and maintenance manuals

3.3 Summary

These instructions (section3) must be completed in accordance with section 1.3 Compliance.

The application of this bulletin must be transcribed in the aircraft maintenance log book.

Approval translation in any case the original text in Italian and metric unit (SI-system) are authoritative.

ORDER FORM SERVICE BULLETIN 70

I request follow order in accordance to section 2.2 service bulletin 70 helicopter CH77 Ranabot .

Helicopter affect SB 70 CH77 Ranabot S/N.....ID/N.....

.....
Total hours Engine Tipe EPA SA-R917Ti.....EPA SA-R914.....
..X... mark with X to confirm tipe of engine

last owner or manager NameLast name.....

email.....Phone.....

technician authorized to apply the service bulletin Name

Last name.....

email.....Phone.....

.X...mark with X for confirm order

.....in add I order full Led/Light Panel Display

.....in add I order film label Doors

HELISPORT HELICOPTERS

Service Bulletin 70 Warning Light Doors

This document responds to all application instructions Section 3 of the service bulletin 70

Step1

Check that you have installed on your CH77 the led panel display



Step2 –

Check that the
DOORS red film is
applied on your
CH77 Led Display

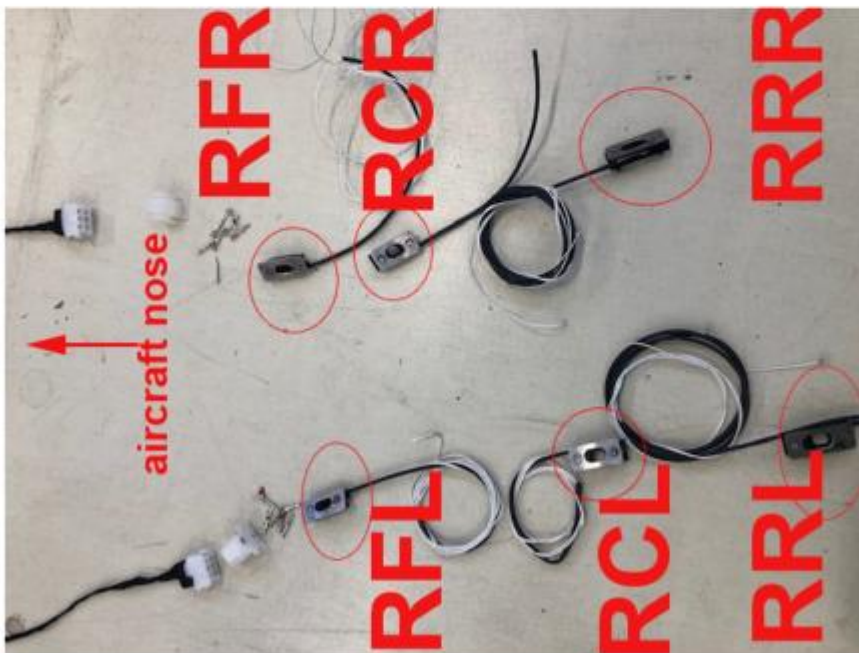
Step3 –Order from
CHH the kit in
accordance of your
helicopter
configuration
See section 2.2



Step4 –The doors warning system is composed of 6 receptacles sensor ,4 are different from each other ,2 are the same, in this Step4 we learn to recognize the receptacles and their positions.

receptacles:

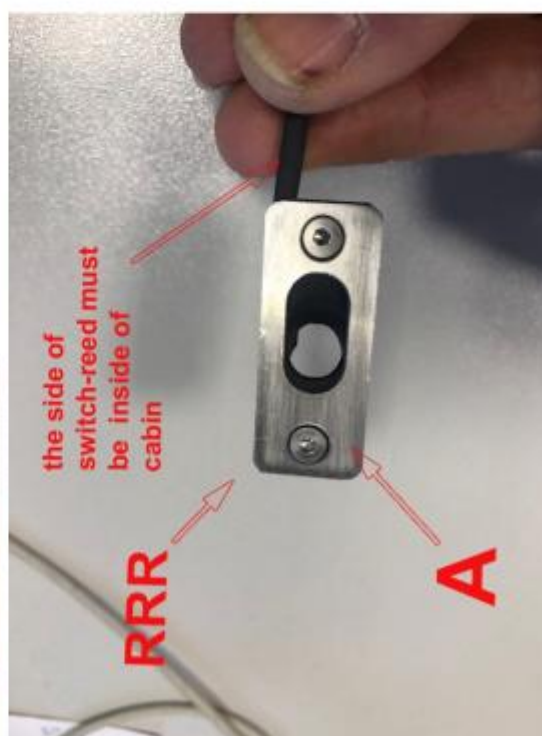
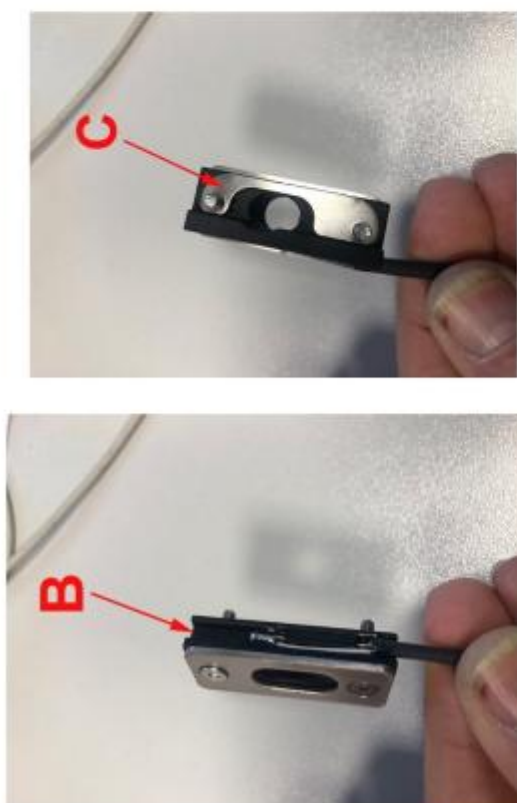
RFL Front Left
RCL Center Left
RRL Rear Left
RFR Front Right
RCR Center Right
RRR Rear Right



Step4 cont'd – The receptacle is composed of 3 elements: front in steel A, central in plastic B, rear in steel C.

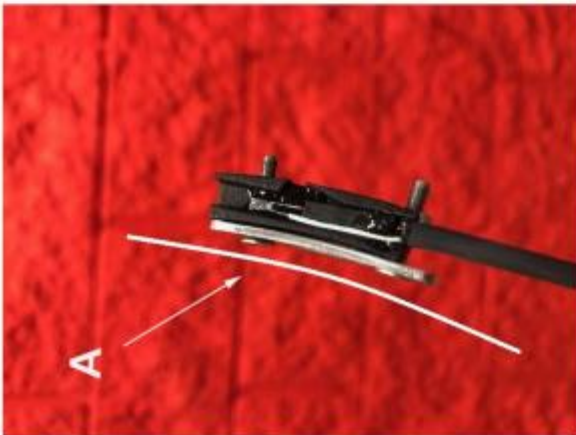
Step4 cont'd –

If the surface of the A is flat ,or is RRL or is RRR, the sensor wire must always be inside the cabin, for that this is the Receptacle Rear Right RRR



Step4 (cont'd)

if the surface of the A is concave ,or is RFL or is RFR, the sensor wire must always be inside the cabin, for that this is the Receptacle Front Left RFL

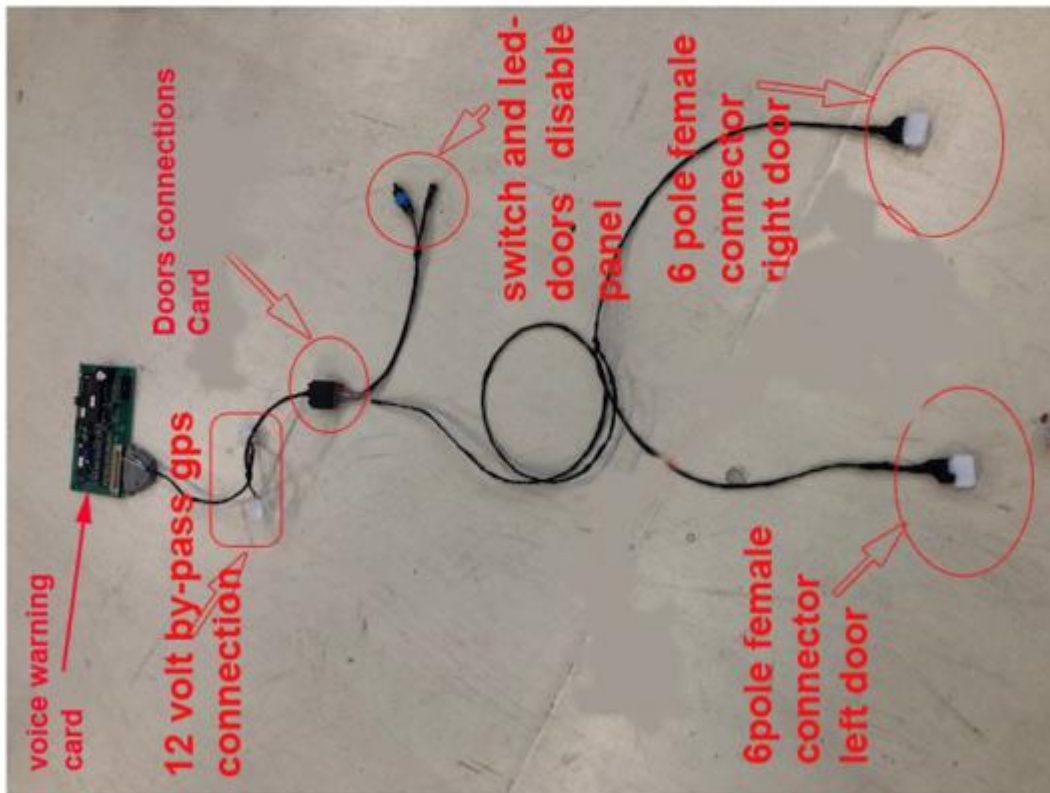


Step4 (cont'd)

if the surface of the A is convex receptacle, or is RCL or is RCR, the sensor wire must always be inside the cabin, for that this can be installed like the Receptacle RCL or RCR



Step5 –Door wiring assy drawing



**Step6- apply
paper tape on
the hole of the
door , close the
door to check
the centrality of
the hole**



Step6 (cont'd)-,
Place part A of
the receptacle
exactly in the
center of the
oval hole, mark
the position of
the screw
holes, drill
with a 3 mm
bit



Step7 - Apply tape to hold the pieces B-C together, apply the receptacle RRR by sliding it from the top, remember that the sensor wire must always be on the inside of the cabin, the screw but do not fully lock



**Step8- repeat step 6,
apply the receptacle
RCR sensor wire must
always be on the inside
of the cabin, with the
cable facing rear of the
aircraft,screw but do
not fully lock**



Step9 – Repeat step 6, apply the receptacle RCL sensor wire must always be on the inside of the cabin, with the cable facing the front of the aircraft, screw but do not fully lock



**Step10- repeat step
6 ,in add apply the
receptacle RFR and
marks the frame of
part A**



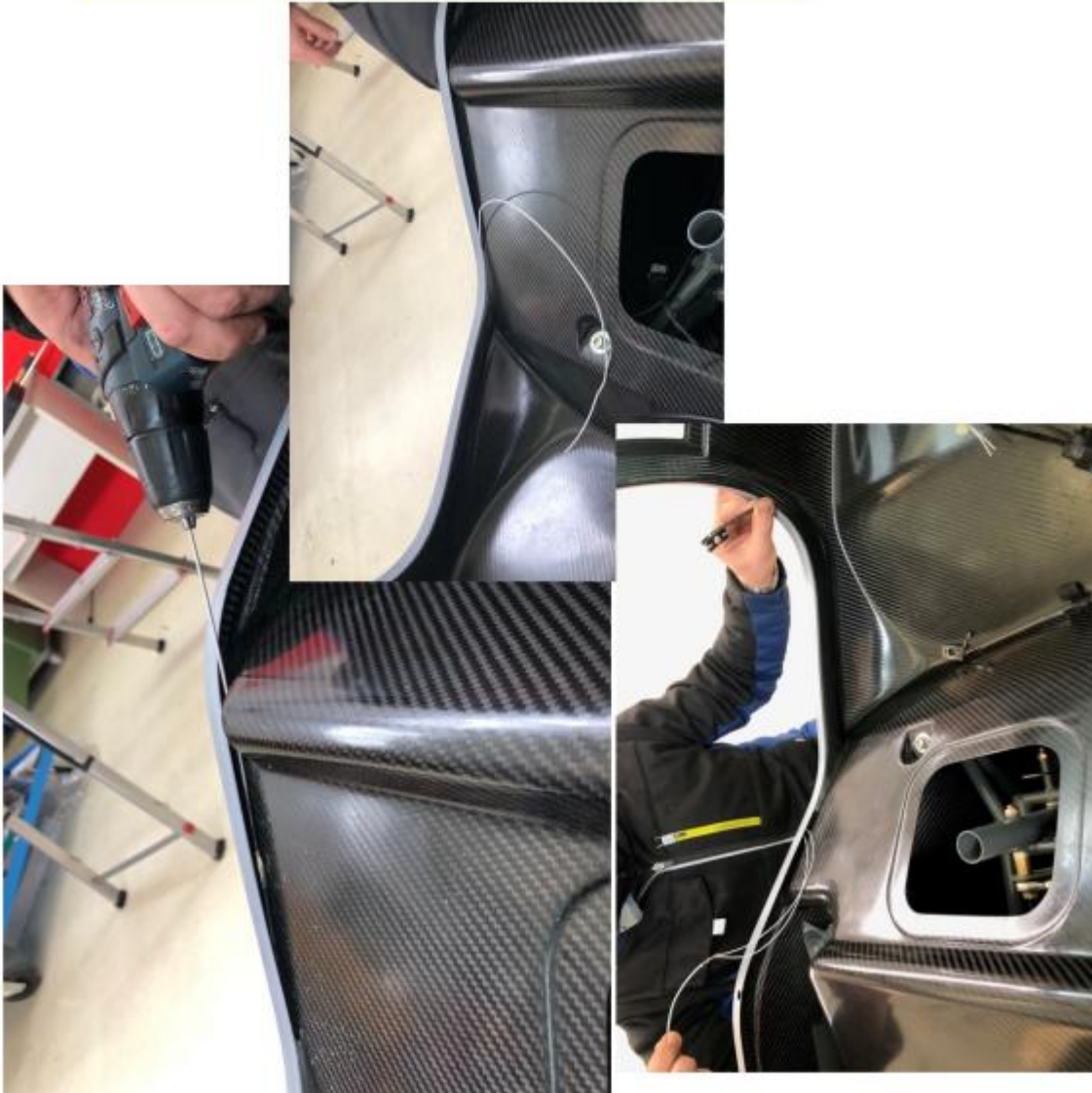
Step10- (cont'd)**With tool**

**Dremel create a
hole wide
enough as per
drawing that the
receptacle can
enter from the
hips smaller
side, but never
large like part A**



Step10--(cont'd)

Drill a hole with a special long 3mm bit as shown in the picture. insert one meter long wire to drag out the receptor wire

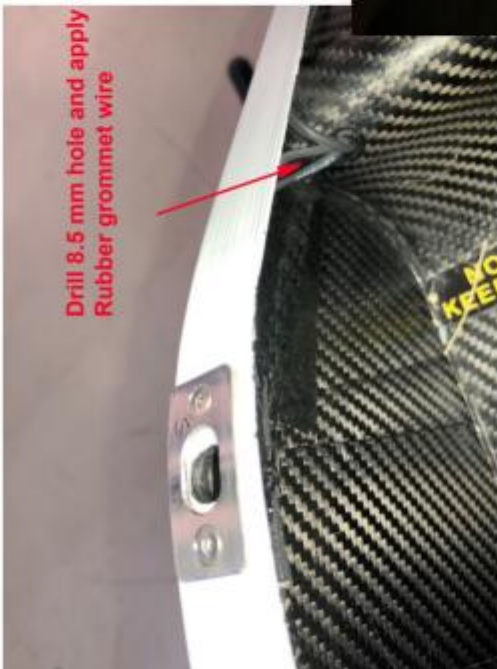


Step10- (cont'd)
Put the RFR
receptor inside
and drag the
cable out, put
only the top bolt
to put the
receptacle inside
and then screw ,
do not fully lock.
, if the internal
surface is not
exactly flat you
may have
difficulty in
fixing the front
receptacle, if
necessary use
abrasive tools to
remove the
material inside .
Repeat Step10
for RFL



Step11-

Drill 8.5 mm holes and apply the rubber grommet wire, in the right door it must be done behind the receptacle in the left door it must be done in front follow picture, put the all wires through the holes and bring them close to the housings cyclic control, fix the receptacle wire with black silicone adhesive

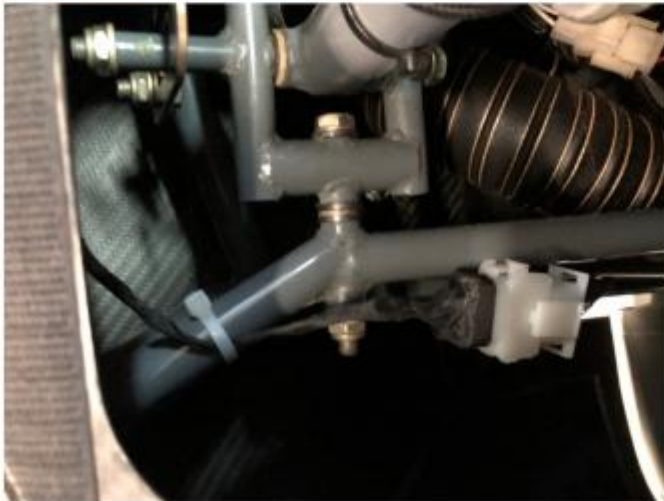
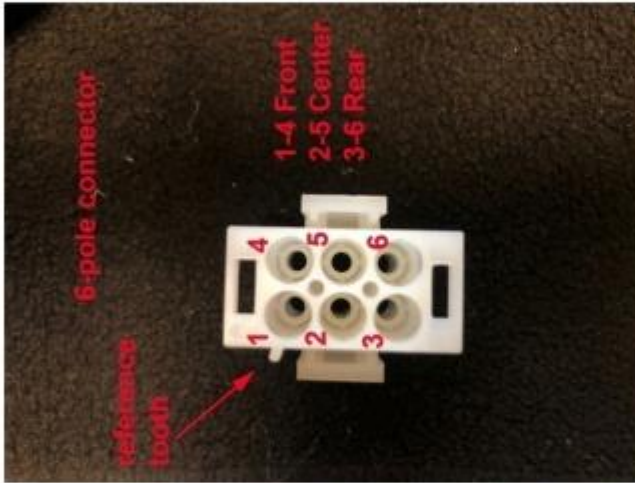


Step12-

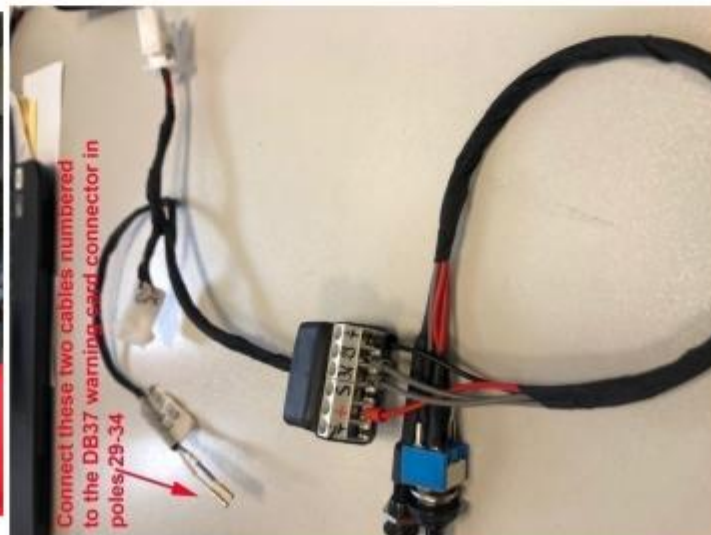
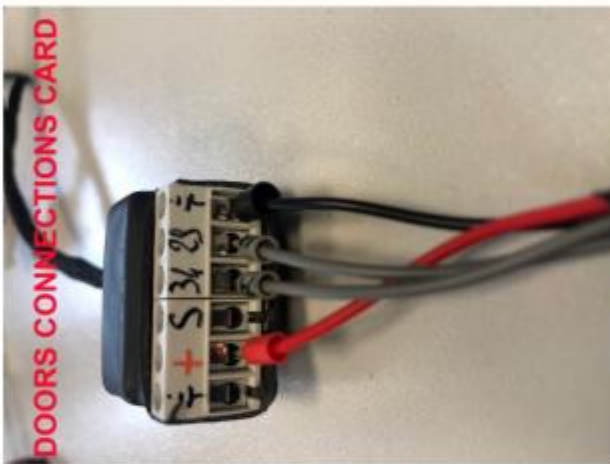
Put the doors wire inside the right and left cyclic control housings and fix 6-pin connector female with ty-rap on frame tube as picture, pass the other end of the female connector wire into the instrument console and connect the S and ground wire to the Doors

Connectors Card. apply the male crimp receptacle wires using the appropriate pliers.

Connect all receptacles wire to male connector 6 pole, follow the numbered pattern in the 6 pole connector picture drawing



Step 13- Unscrew the instrument panel, and place a suitable support for the panel .
.Connect to Door Connections Card to switch the led disable panel cables ;+red -34- 29 – black ground, place the Doors Connections card to the wiring of the DB37 socket and fix by ty-rap .
Connect these two cables numbered to the DB37 Warning Card Connector in poles 29-34 ,connect the power 12 volt by-pass to the 12volt gps connector of the helicopter wiring



Step 14-

Disassemble the booth doors locking system and replace the 6 pins with the new special pins supplied in the SB70 kit, performed the replace check that the pins come out of the door from 25mm to 30 mm not less measured by leaning on carbon and not over the bushing



Step 15-

Install the switch and the led on the instrument panel at the distance shown in the drawing ,from 30 mm to center of switch-back of voice checklist, drill a hole 8 mm diameter for the led , from 20 mm to hole's led drill 6 mm for switch . Screw the switch and led on the panel , apply the sticker DOORS DISABLE



Step 16-

Adjust the position of the receptacle by opening and closing the doors several times ,performed it screw definitely the bolts of all receptors with appropriate torque. check using the Test box that all receptacle are working correctly.



Tools and Special tools

