

## CHAPTER 4

### FAULT REPORTING AND FIRST LINE SERVICING

#### Contents

4.1	SERVICING POLICY .....	3
4.2	CONTACT .....	3
4.3	WARNINGS AND CAUTIONS .....	4
4.4	SERVICING .....	5

#### List of Figures

Figure 4.1	Replacing Major Modules.....	7
Figure 4.2	Schematic Diagram Video Control Unit .....	9

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## 4.1 SERVICING POLICY

This unit is of a modular design, defective or suspect modules can be simply isolated and replaced.

Fault diagnosis to component level is not possible. Service repair is, therefore, by module replacement only.

Component replacement is limited to cable assemblies, fuses, the mains filter, and the control panel assembly.

## 4.2 CONTACT

If a unit exhibits a fault, please contact:

Northrop Grumman Sperry Marine B.V.	Telephone: +(44)(0) 208 329 2400
SERVICE CONTROL	Or +(44)(0) 208 329 2000
Burlington House	
118 Burlington Road	Fax: +(44)(0) 208 329 2458
New Malden	
Surrey KT3 4NR	
England	

or:

Request support on line by going to [www.sperry-marine.com](http://www.sperry-marine.com), and click on the customer support link.

Information required for Service.

- 1 Name of Vessel (and Satcom or Fax Number if fitted)
- 2 Equipment Type, including prefix and suffix letters
- 3 Software version number (where applicable)
- 4 Next port of call, ETA and Ship's agents
- 5 Fault description (as detailed as possible)
- 6 Contact name.

## 4.3 WARNINGS AND CAUTIONS

### Warning Lethal Voltage Hazard

When access covers are removed, lethal voltages may be exposed. Some capacitors used in the equipment take several minutes to discharge their stored voltages after switch OFF; this is a lethal voltage hazard. Always set the supply switch-fuse to OFF before removing the access covers of the equipment.

### Warning Health Hazard

When cleaning the inside of the equipment, take care not to inhale dust. The dust is a temporary health hazard, depending on individual allergies.

### Warning Radiation Hazard

Keep outside the hazard zone around an antenna or open waveguide radiating power. When it is necessary to work on the Scanner Unit, make sure that radar is switched OFF, and that the mains to the Scanner Unit is isolated.

Never look directly into an open waveguide.

Radar and other forms of RF radiation can cause Cardiac Pacemakers to malfunction. If you use a Cardiac Pacemaker and suspect a malfunction, leave the vicinity of the radar system immediately and seek medical advice.

Most countries accept that there is no significant radiation hazard at RF power density levels of up to 10 mW/cm<sup>2</sup>.

### Caution Electrostatic Sensitive Devices (ESSDs)

This equipment contains ESSDs. Take care not to damage these devices by discharge of electrostatic voltages.

## **4.4 SERVICING**

### **4.4.1 General**

Before replacing any module, check that the link and DIL switch settings are the same on the replacement module as those on the defective module.

Information on link and switch settings may be found in Chapter 2.

A record of the original link and switch settings should be found in Appendix A at the end of this manual.

Instructions for changing major modules can be found on Figure 4.1

### **4.4.2 Power Supply Unit 65841803**

There are no replaceable components on this module, servicing is by module replacement.

Apart from the link settings there are no adjustments to be made when the power supply unit is changed.

### **4.4.3 Video Control Unit Logic PCB 65857801**

There are no replaceable components on this module, servicing is by module replacement.

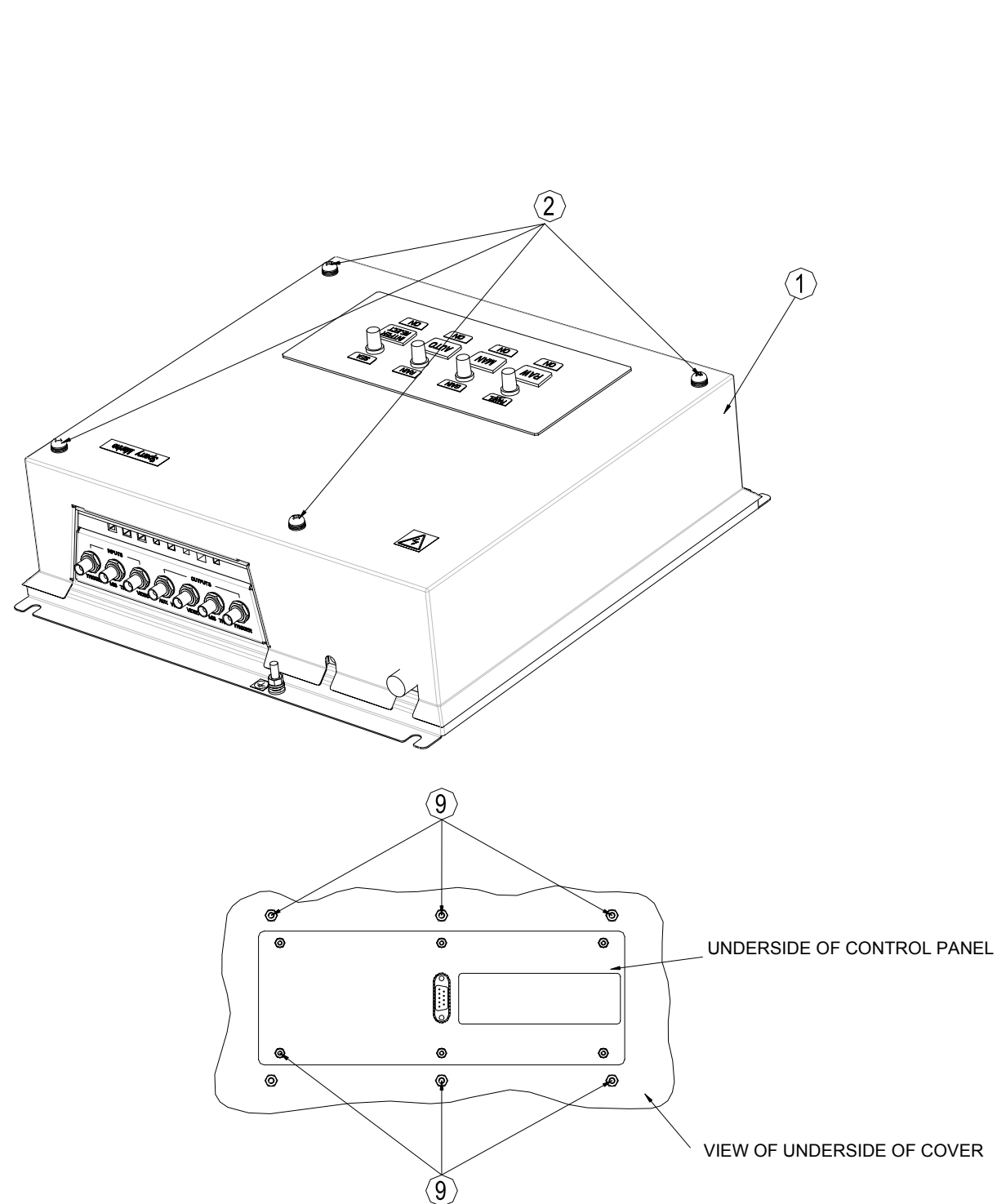
In addition to link and DIL switch settings, the video input and video output presets must be set. For details see Chapter 2 Section. 2.6

### **4.4.4 Control Panel 65857600**

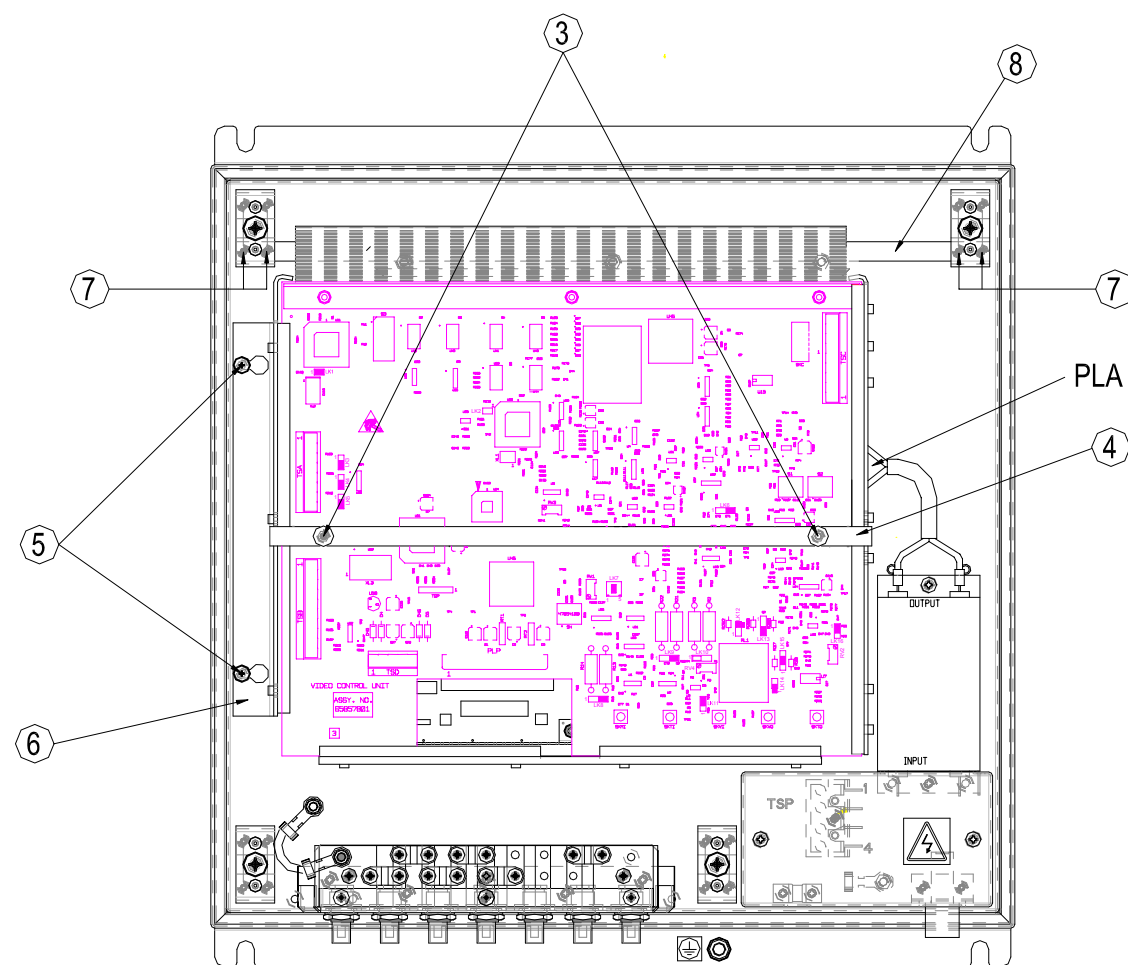
This is serviced by modular replacement.

There are no settings to be made when replacing this module.

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FILE REF:65857010Figure4\_1.DWG



**To Remove Cover (1)**

Loosen four off captive screws (2), and lift cover off. If the control panel is integrally mounted in the cover; lift the cover carefully and disconnect the D type connector from the control panel before attempting to completely remove the cover. The cover can then be completely removed.

**To Remove and Replace VCU Logic PCB**

Remove cover (1).  
Note: If the PCB is to be replaced record link and switch settings so they can be transferred to the new PCB.  
Loosen two captive screws (3) and remove stay bracket (4).  
Loosen two screws (5) and remove card guide bracket (6).  
Slide PCB out of card guides and lift clear.

**Replacement**

Replacement is the reverse of the above. When replacing the PCB make sure that the power supply and the VCU logic PCB are correctly located in the card guides on all three sides. When the VCU logic PCB and power supply are correctly located in the card guides, push the card guide bracket (6) tight against the PCB and tighten two screws (5). Reset links and switches, and adjust potentiometers as necessary. Customising and setting up details can be found in Chapter 2.

**To Remove Power Supply**

Remove cover (1)  
Remove VCU Logic PCB  
Disconnect PLA  
Remove four screws and washers (7) securing anti-vibration bar (8).  
Slide anti-vibration bar out of power supply heatsink and remove.  
The power supply may now be withdrawn from the card guides.

**Replacing Power Supply.**

Before fitting a replacement power supply check that link settings are correct. The links cannot be set after the power supply is fitted. Locate the Power Supply and VCU Logic PCB in the card guides, and fit card guide bracket (6). (as detailed in replacing VCU Logic PCB). Slide anti-vibration bar (8) into power supply heatsink and secure using four screws and washers (7)

**To Remove Control Panel**

Remove cover (1) as above.  
Remove six nuts and washers (9) control panel can then be withdrawn through front of cover.

Figure 4.1 Replacing Major Modules

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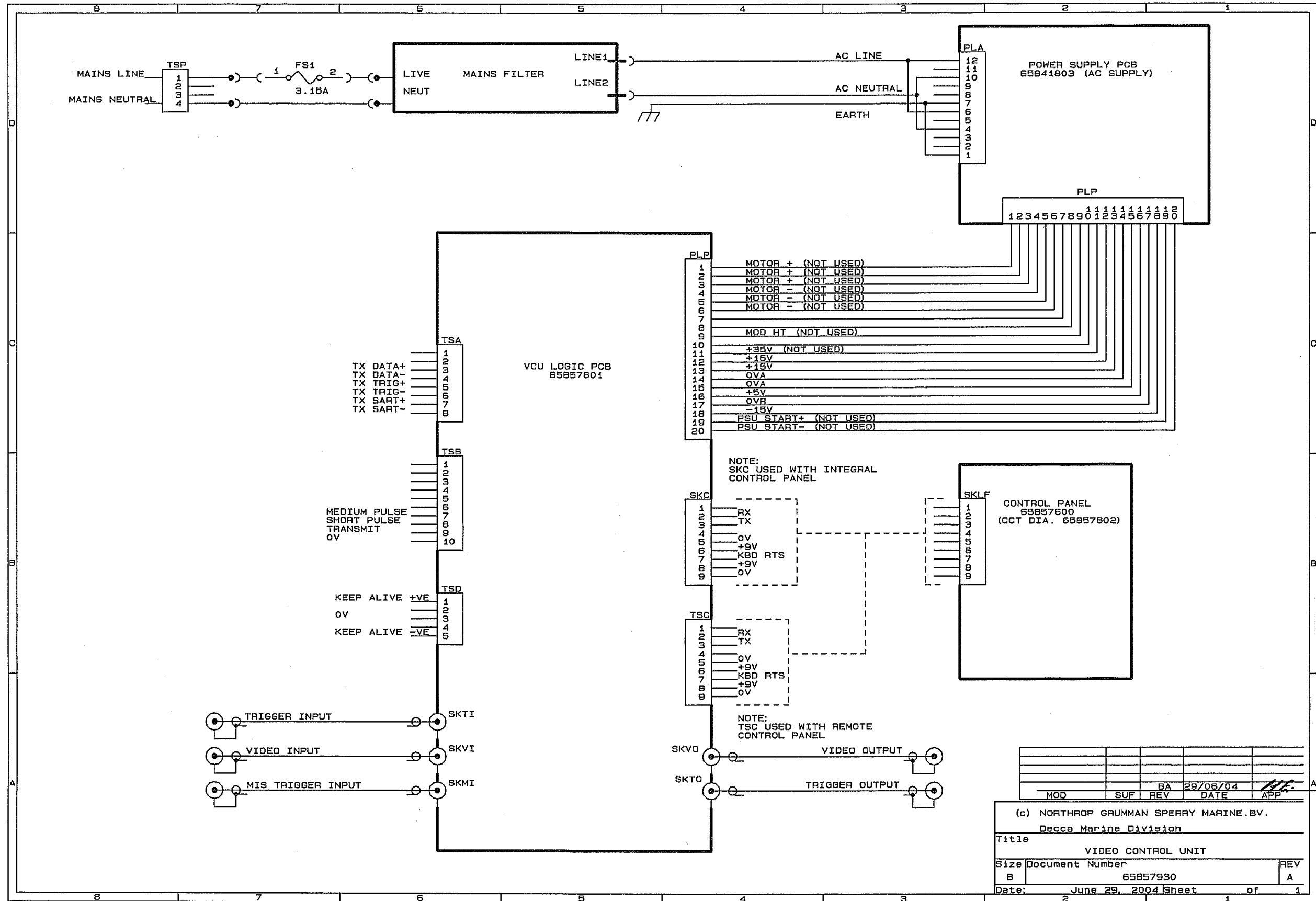


Figure 4.2 Schematic Diagram Video Control Unit

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