STORNOPHONE 900
BASE STATION
FM900
WITH
600 ADAPTABILITY

Service coordination

DATE: 12.83

EDITION: 1.

PUBLICATION: NO. 8313.6900-00

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FM900 w/600 ADAPTABILITY

COMBINATION NUMBER RADIO EQUIPMENT

DIGIT 0&1&2	DIGIT 3	DIGIT 4	DIGIT 5	DIGIT 6	DIGIT 7	DIGIT 8	DIGIT 9	DIGIT 10	DIGIT 11	DIGIT 12	DIGIT 13	DIGIT 14	DIGIT 15	DIGIT 16
PROD. CODE	TX FREQ. RANGE	RX FREQ. RANGE	CHAN. SPACE	RADIO TYPE	POWER OUTPUT			FREQ. CAP.	CONTROL	VERSION	OSC. STAB	PACK SIZE	SYSTEM VOLT	RX TYPE
FM9	1	1	2 25 kHz	S SIMPLEX	0	0	6	A Synth.	A Adapta-bility	A STAS EXP.	0 STAND.	C 463 MM	0 STAND.	U Pre-amplifier
	3	3	3 20 kHz	D DUPLEX	0	1	0	C Multi-plier		G STEL	A ±2 ppm		B 12 VDC	0 STAND.
	6	6	4 12.5 kHz		0	1	8			F STOF	B ±5 ppm		H 24 VDC	H No Pre-amplifier
					0	2	5			E SLTD	C ±4 ppm		M 220 VAC	
					0	4	0			S STAB	D ±10 ppm		L 110 VAC	
										D STAS	E ±5.3 ppm			

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STRUCTURED OPTIONS

A No. of TX Freq.	B No. of RX Freq.	C Cabinet for CP	L TX Isolator	P High IM. Attu.	R Mount. Hardw.
0 None	0 None	A Adapta.	0 None	0 Stand.	0 None
A 1	A 1		1 Isolator	P Single IA Conv.	M Mount.
Z Synth.	Z Synth.		2 Prepa.		

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FM900

600 ADAPTABILITY

The Stornophone 900 Compact Base station is controlled by a CAF600 control.
The radio station is identical to the M900 mobile version axcept for the following:

IU902 Interface Unit replaces CL901
PS906 Power Supply is implemented for -24 V.
PS901 Power Supply is implemented for 220/110 V AC.

A cabinet similar to the radio cabinet contains the CP6xxx control panel belonging to the CAF600 control. The control equipment tabulated below can be used:

Control Type	Control Box	Terminal Box	Control Panel
CAF621	CB681	TE681	CP681
CAF622	CB681	TE682	CP682
CAF682	CB684	TE684	CP684
CAF683	CB684	TE684	CP685
CAF687	CB686	TE686	CP686
CAF623	CB681	TE682	CP688
CAF645	CB684	TE685	CP689
CAF624	CB681	TE683	CP6813

The control equipment has 2 or 4 wire telephone lines for remote control.

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IU902

INTERFACE UNIT

The IU902 is an interface unit for a CAF680 control installation used with a FM900 base station. The IU902 mounts in the base station on the place normally occupied by the control logic. The control interface can be used in simplex stations and duplex stations.

The interface unit consists of the following functional circuits:

- Channel control circuit
- Transmitter key circuit
- Transmitter modulation amplifier
- Receiver audio amplifier with or without squelch mute switch
- Squelch circuit (SQ901)

CHANNEL CONTROL CIRCUIT

The channel control circuit can be used in radios with frequency synthesizer and in multiplier versions. If the radio channels are generated by a frequency synthesizer a strapping arrangement allows two 8-bit switches to program the channels.

TRANSMITTER KEY CIRCUIT

The transmitter key switch circuit consists of Q4, Q3, Q2, U2, Q7, Q10, Q9 and Q8.

When the transmitter key button is depressed, Q2 and Q4 go on and the output transistor in optocoupler U2 turns on. Q4 applies -24 V to the transmitter circuits in the control equipment and Q2 turns Q3 off to remove -24 V from the receiver circuits in the control equipment. For duplex operation W8 is removed to turn Q3 on continuously. Q7, D19, Q9 and Q10 control the antenna switch and the transmitter. D19 and C35 are a delay circuit to hold the antenna switch on until the transmitter power is switched off. D20 and D21 are only used in simplex radios and control the FG9xx. D18 is used to mute the RX audio amplifier when the transmitter is keyed.

SQUELCH CIRCUIT

The squelch circuit consists of U4b, U5, Q6, U1 and Q1. U5 is a SQ901 micromodule which receives a DC-regulation voltage from U4b which also gives a negative squelch sensing voltage for the control equipment. Q6 is a FET that operates as a switch in the RX-audio line amplifier's feedback circuit. When Q6 is turned on the RX audio is muted at least 65 dB. A switch, S3, selects either PM or FM modulation characteristic and another switch, S4, selects the squelch response time to be either fast or slow.

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TECHNICAL SPECIFICATIONS

Voltage Supply
-24 V ±0.6V
+9 V ±5%

Current Drain
less than 30 mA (-24 V)
less than 30 mA (+9V)

TX/RX output voltage
-23.5 V (I = 100 mA)

TX OFF - Ant. Switch OFF Delay
5 mS ±3 mS

Squelch output signal (J4 pin 3)
Squelched: -24 V
Unsquelched: -11.5V

RX - audio output
1.3 V RMS (600 ohm)
F = 1 kHz; Vin = 300 mV

Discr. audio output
0.7 V RMS
F = 1 kHz, Vin = 300 mV

TX modulation output
300 mV RMS
F = 1 kHz; Vin = 300 mV

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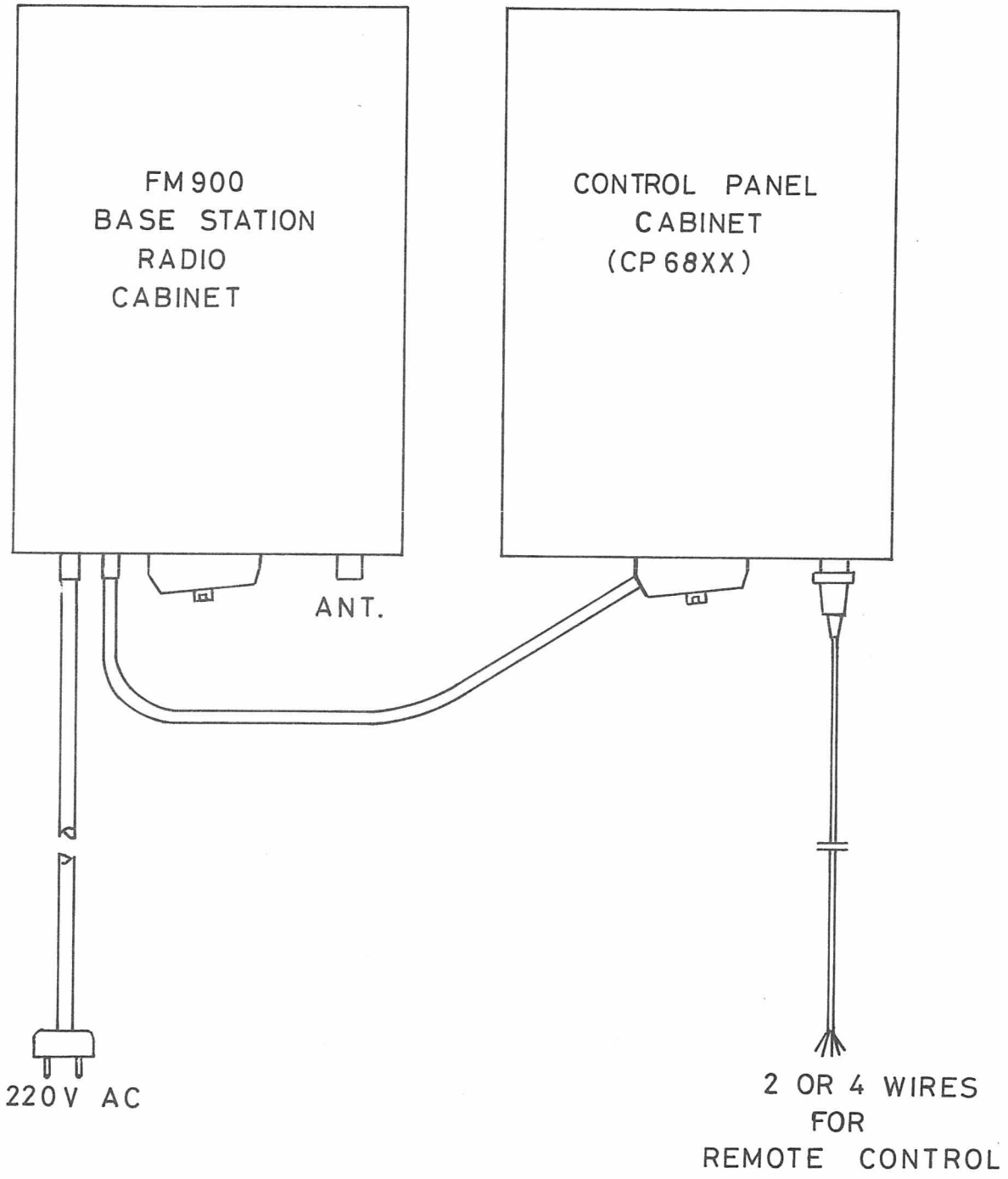

FM 900 BASE STATION AND CONTROL PANEL CP 68XX

D403.656

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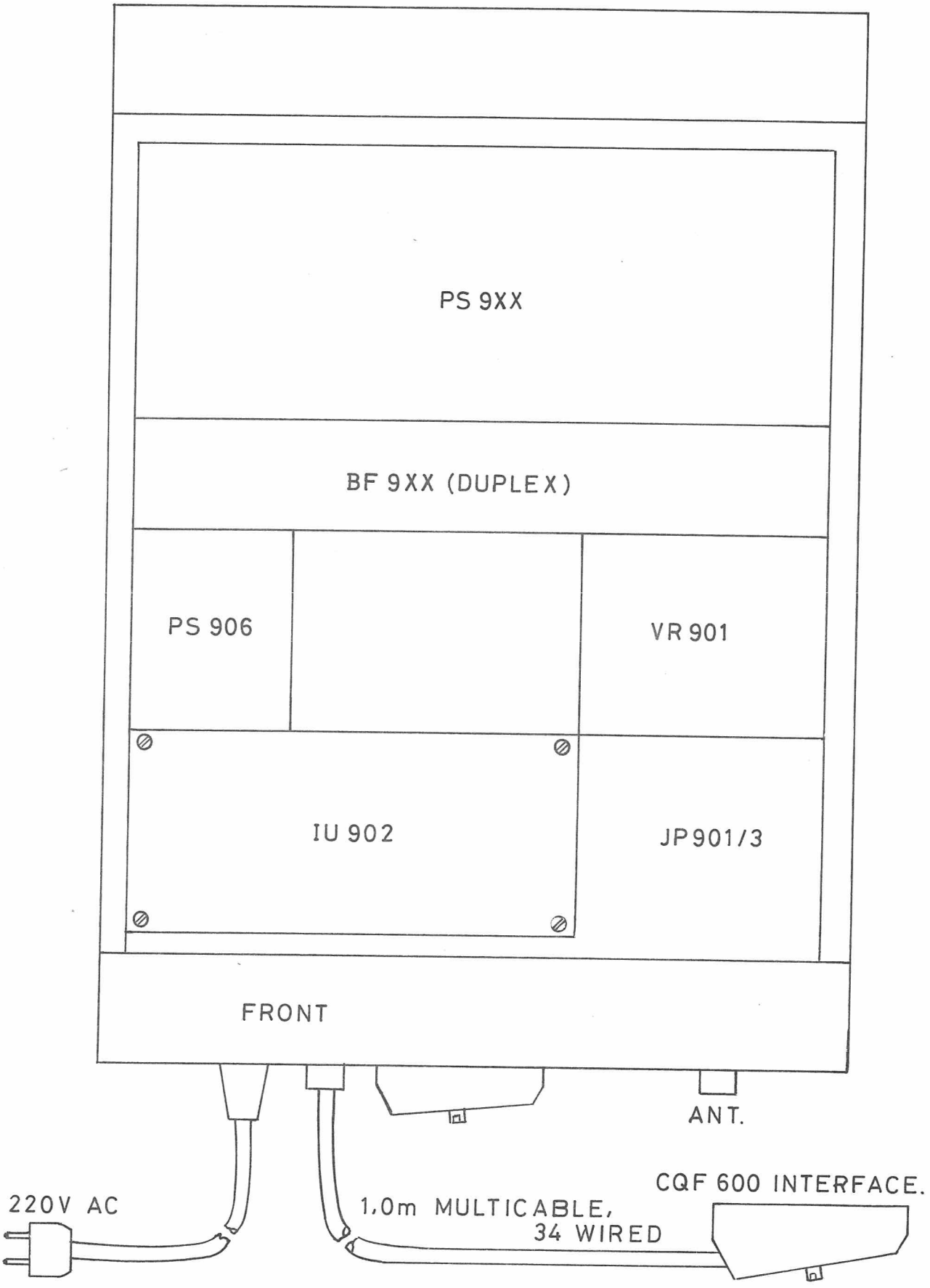

BASE STATION FM 900

D403.654

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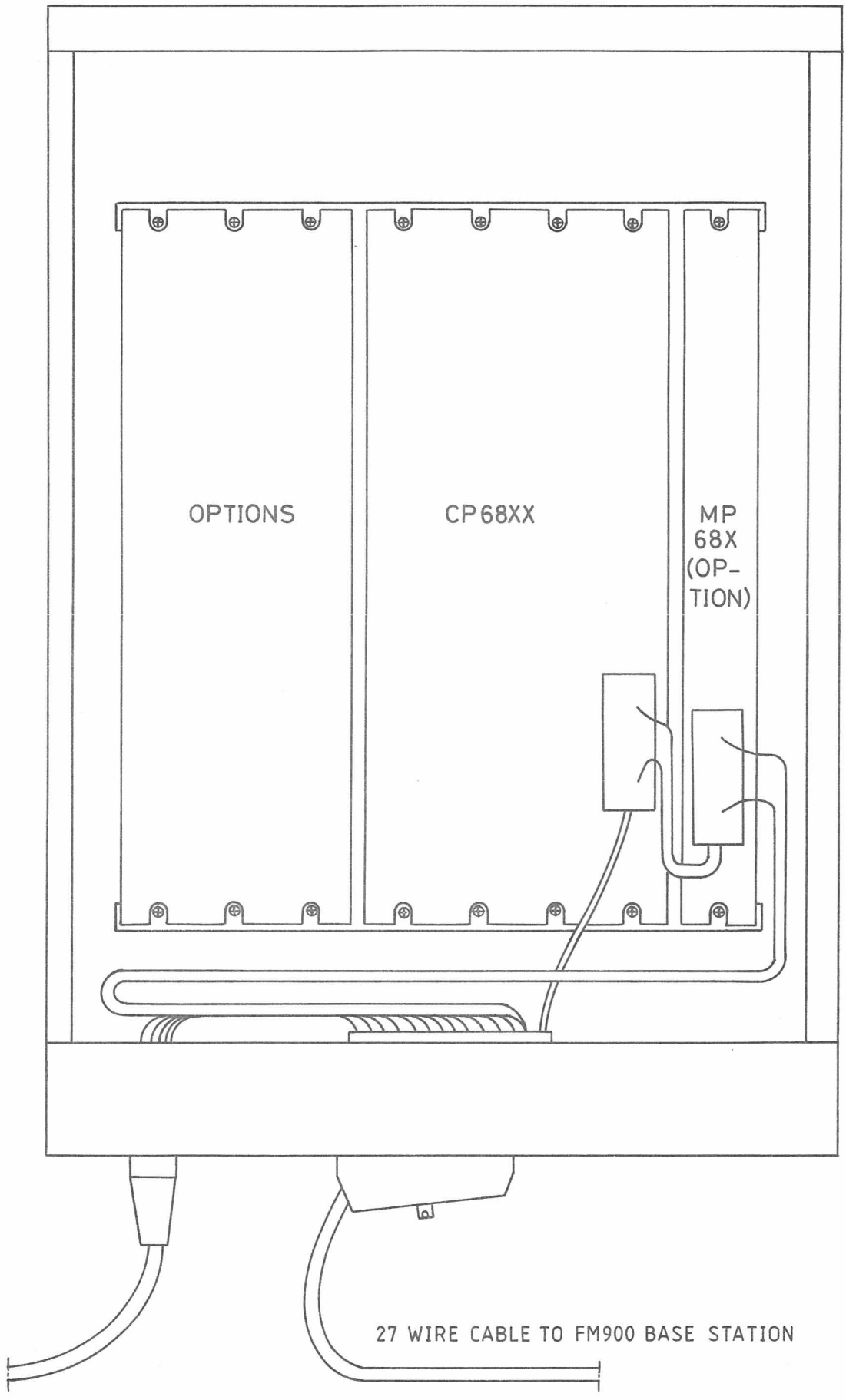

CONTROL PANEL CABINET FM900

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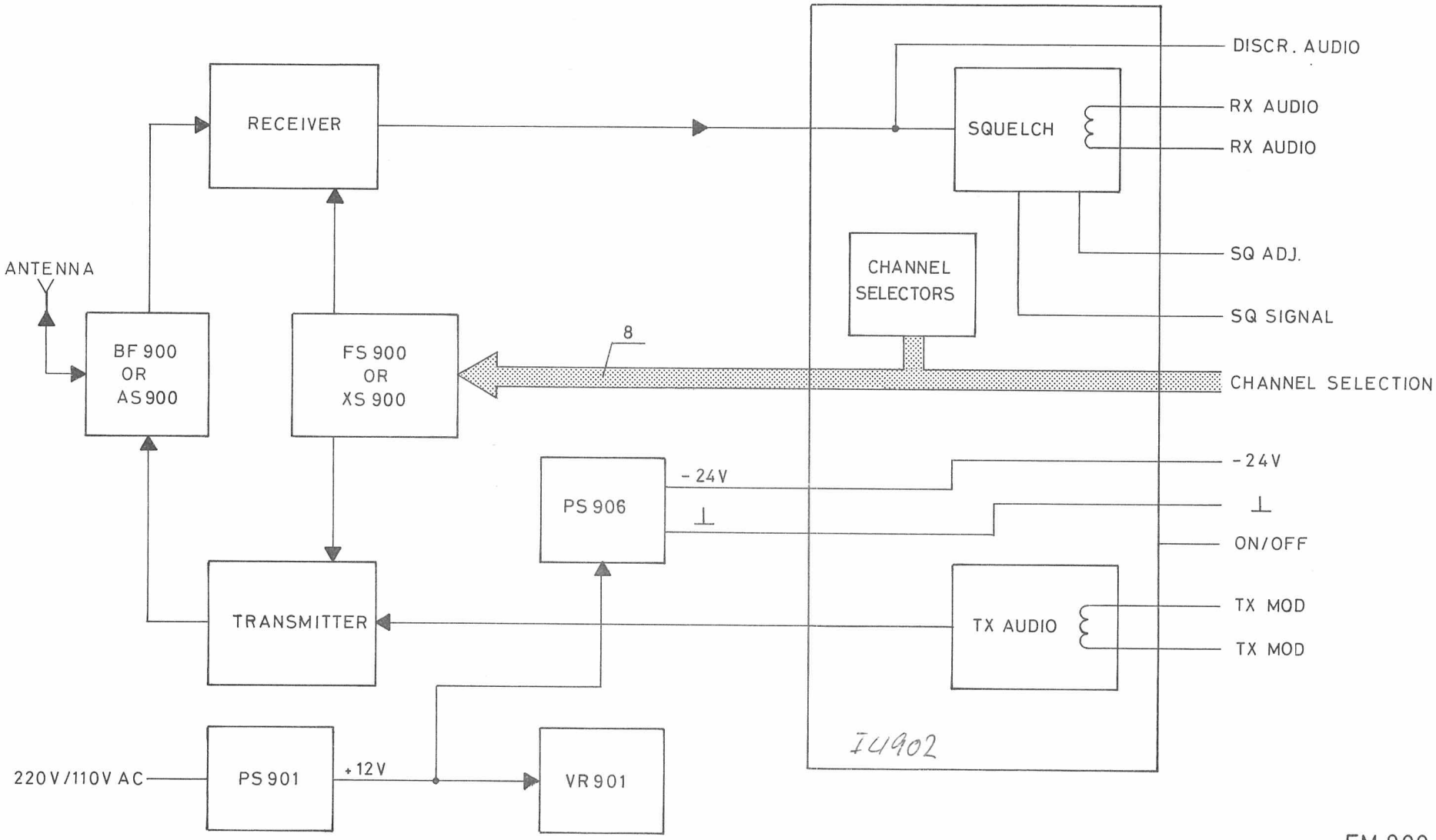

FM 900 WITH
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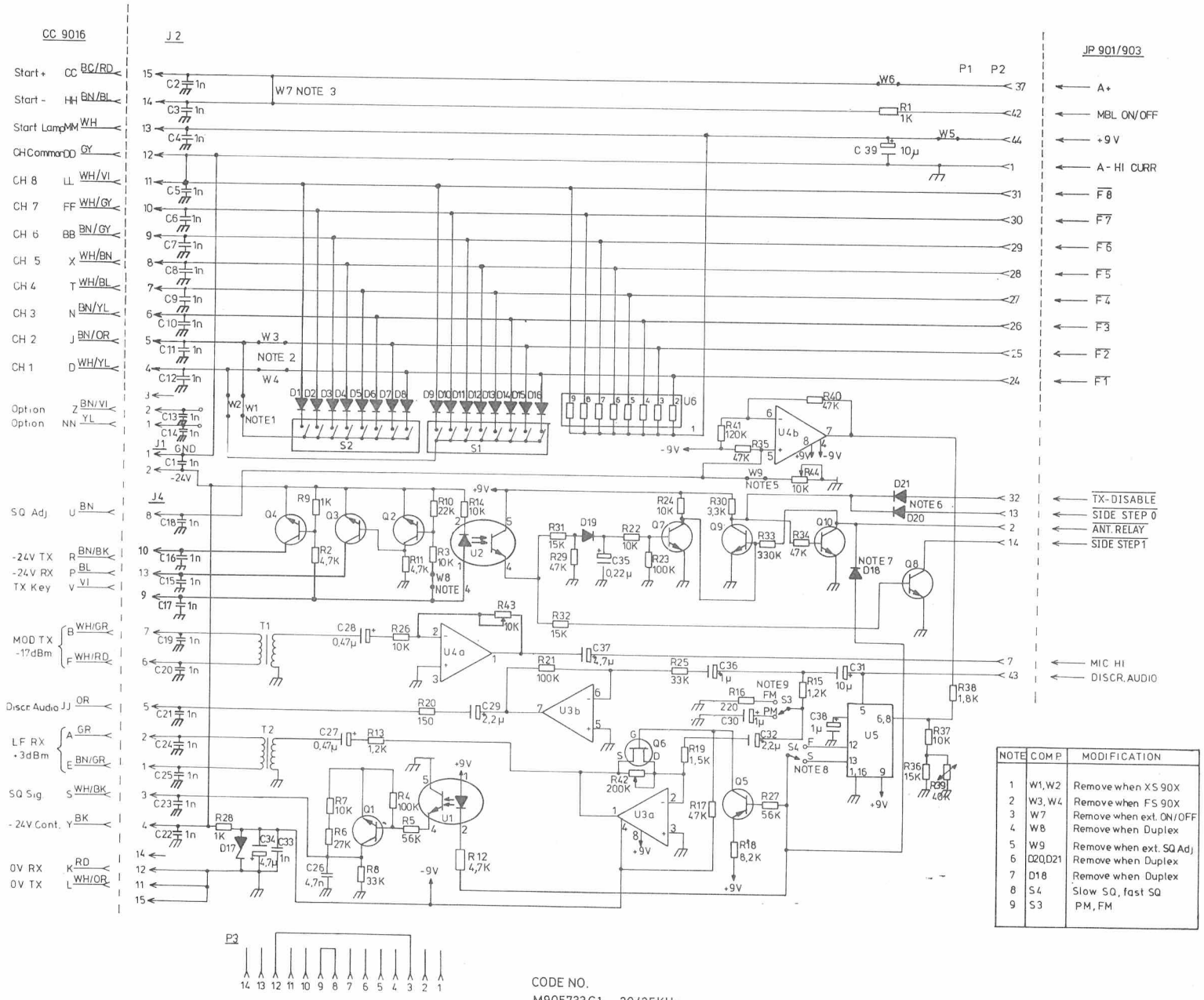

NOTE	COMP	MODIFICATION
1	W1, W2	Remove when XS 90X
2	W3, W4	Remove when FS 90X
3	W7	Remove when ext. ON/OFF
4	W8	Remove when Duplex
5	W9	Remove when ext. SQ Adj
6	D20, D21	Remove when Duplex
7	D18	Remove when Duplex
8	S4	Slow SQ, fast SQ
9	S3	PM, FM

CODE NO.
M905733G1 - 20/25KHz
M905733G2 - 12,5KHz

CAF680 ADAPTABILITY MODULE IU902

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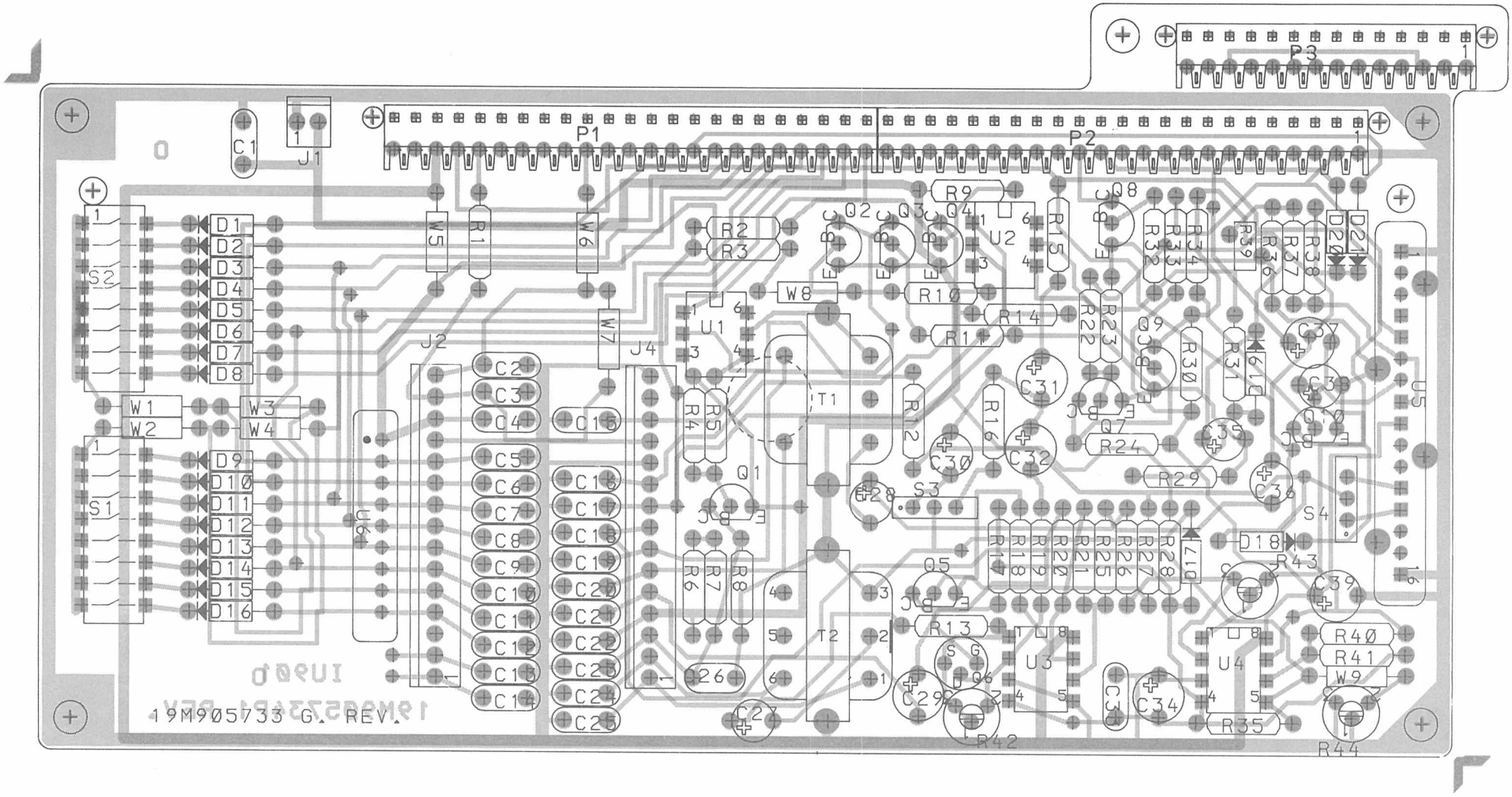

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CAF680 ADAPTABILITY MODULE IU902
COMPONENT LAYOUT

D403.665

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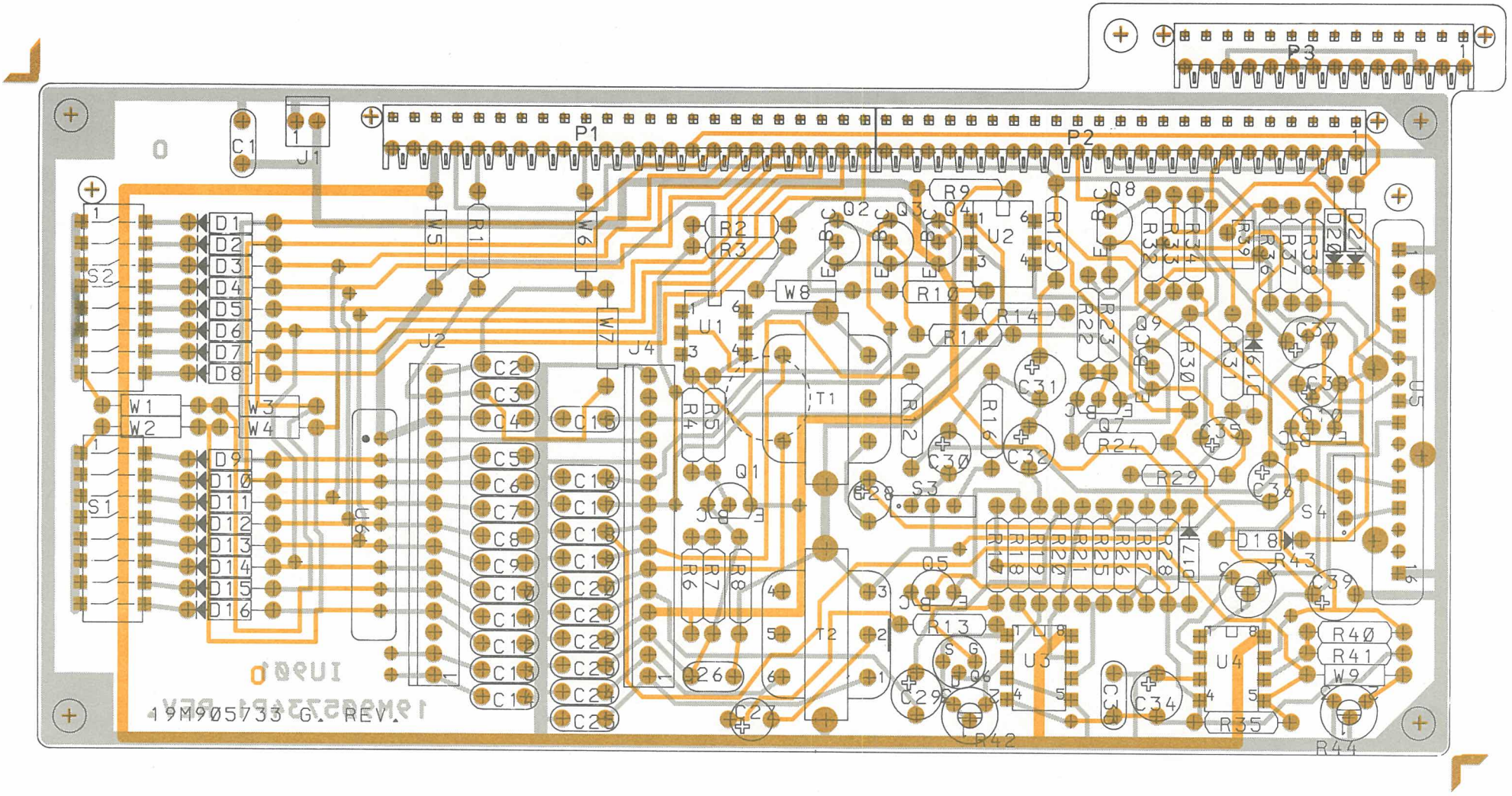

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CAF680 ADAPTABILITY MODULE IU902
COMPONENT LAYOUT

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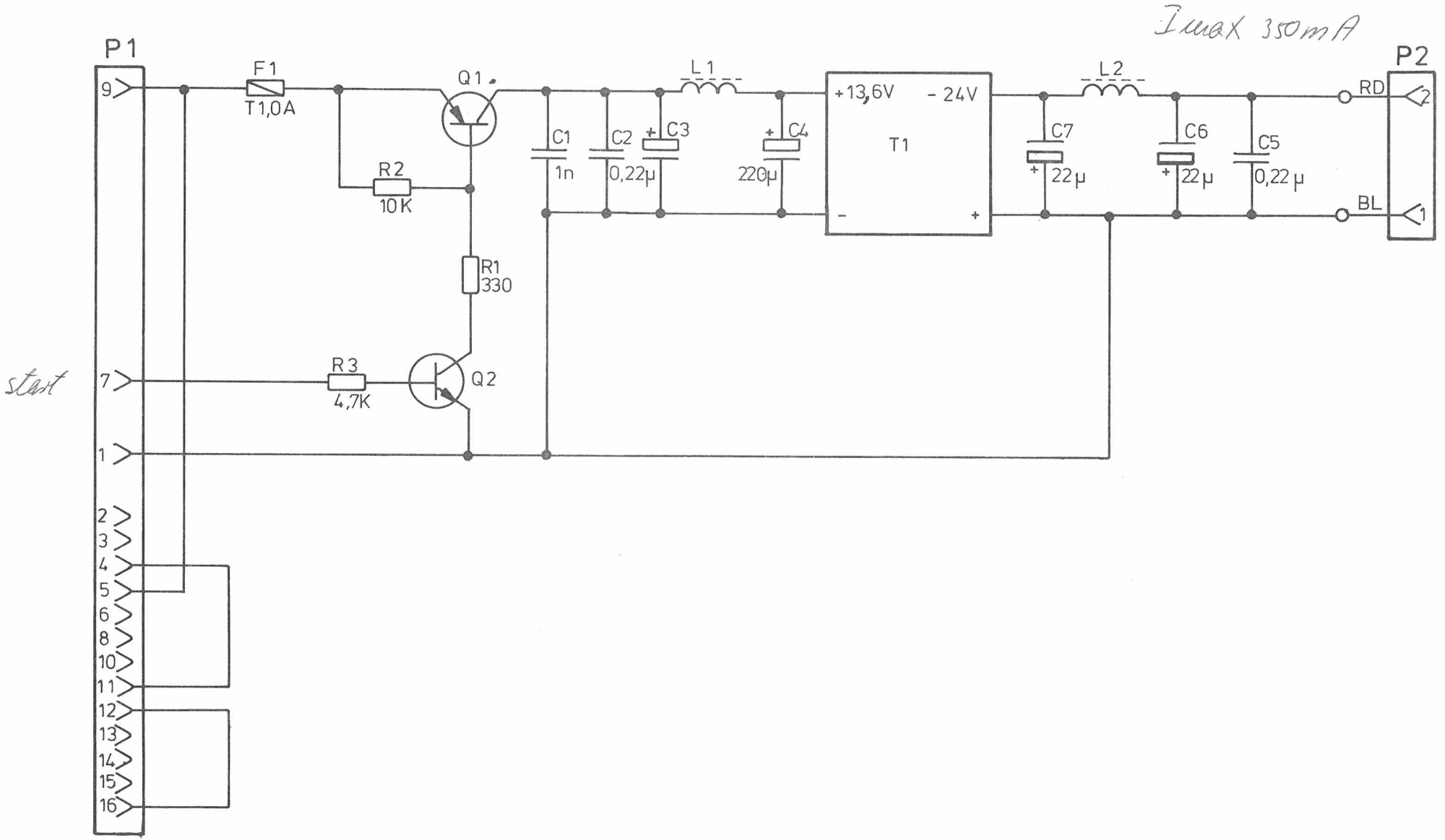

POWER SUPPLY PS906

CODE NO. M905737G1 D403.666

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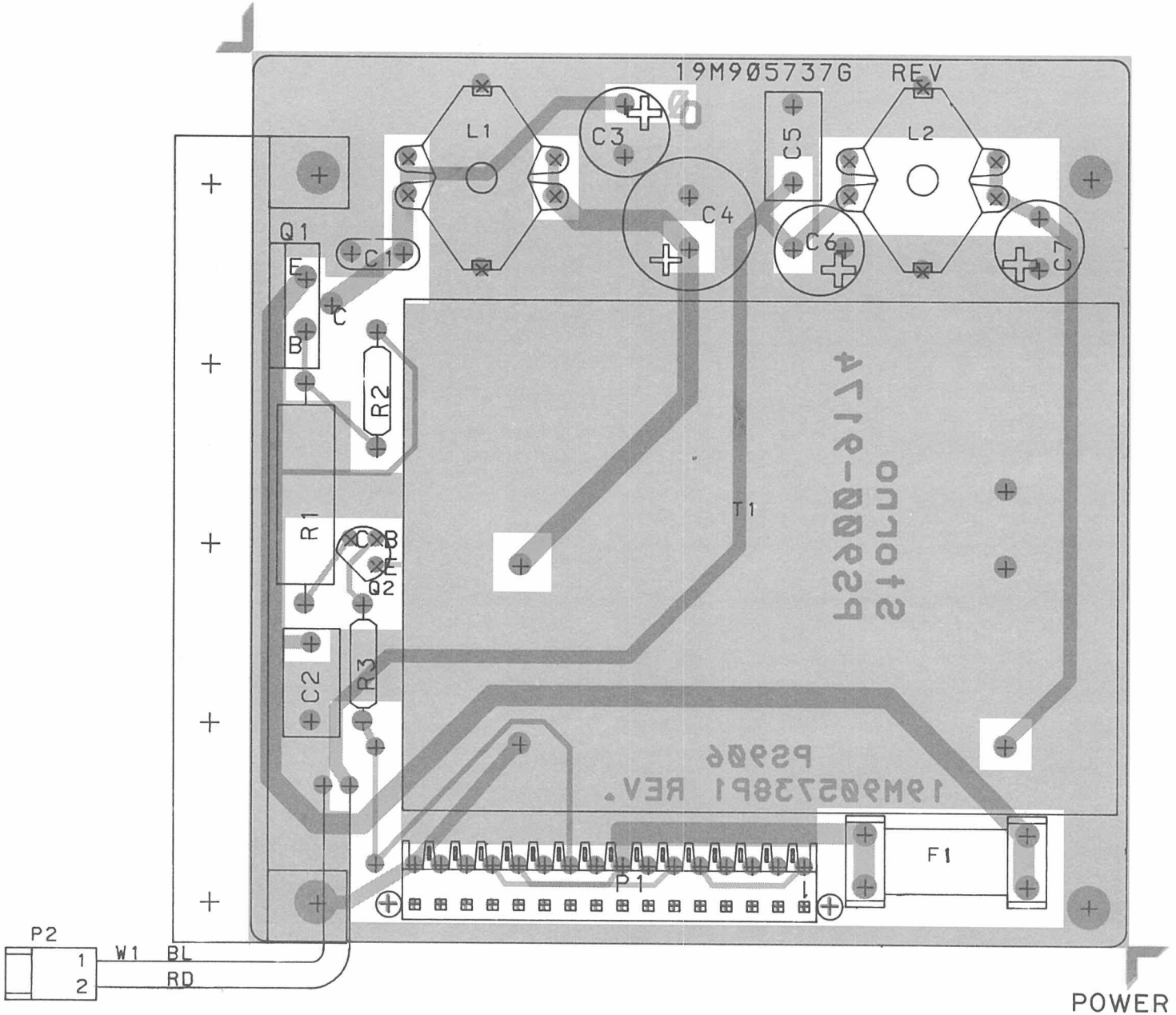

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COMPONENT LAYOUT

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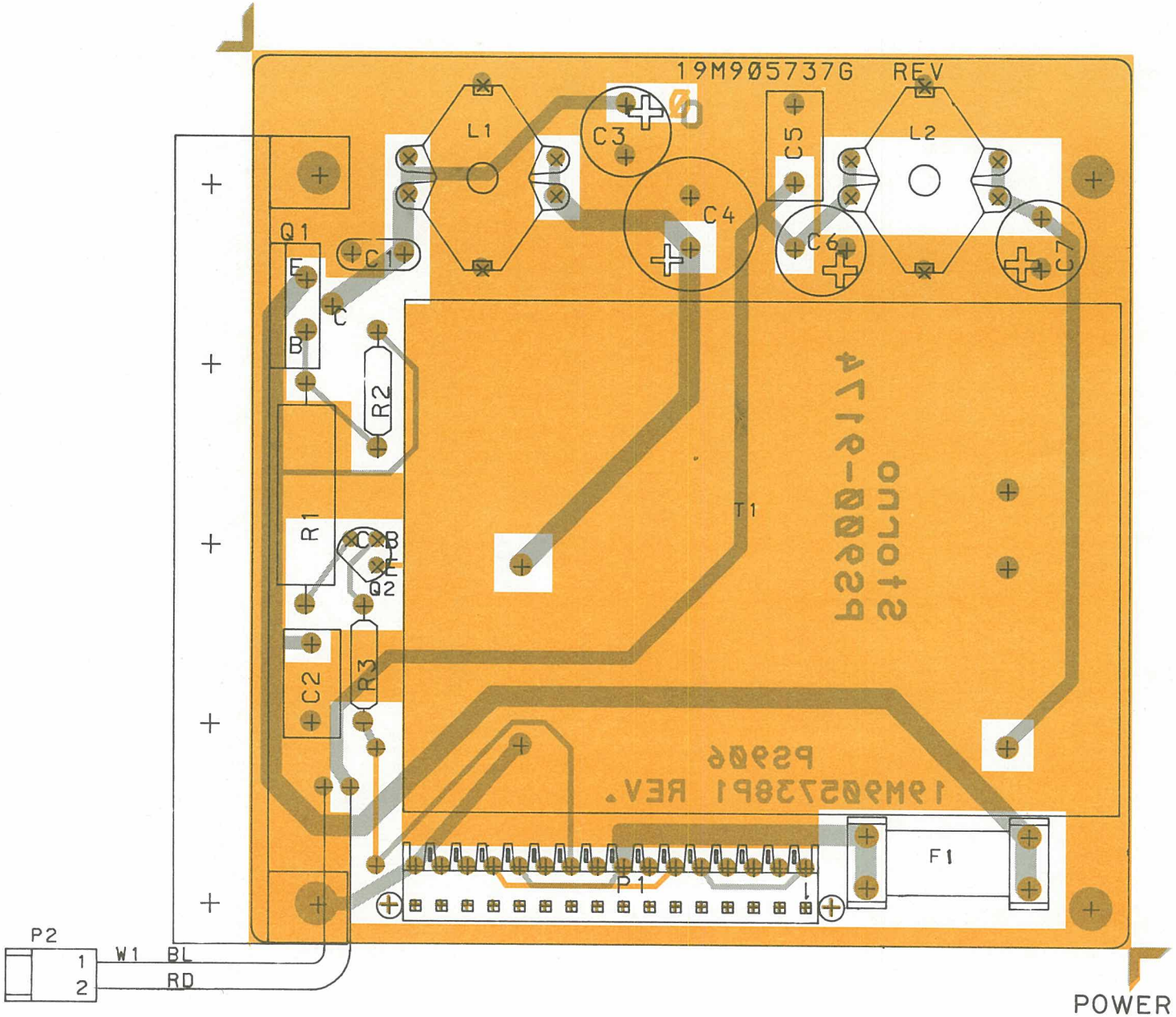

POWER SUPPLY PS906
COMPONENT LAYOUT

CODE NO. M905737G1 | D403.667