

Part B T855 Receiver

This part of the manual is divided into six sections, as listed below. There is a detailed table of contents at the start of each section.

Section	Title
1	General Information
2	Circuit Operation
3	Initial Tuning & Adjustment
4	Functional Testing
5	Fault Finding
6	PCB Information

1 T855 General Information

This section provides a brief description of the T855 receiver, along with detailed specifications and a list of types available.

The following topics are covered in this section.

Section	Title	Page
1.1	Introduction	1.5
1.2	Specifications	1.6
1.2.1	Introduction	1.6
1.2.2	General	1.7
1.2.3	RF Section	1.7
1.2.4	Audio Section	1.9
1.2.4.1	General	1.9
1.2.4.2	CTCSS	1.9
1.2.4.3	Mute Operation	1.10
1.2.5	Microprocessor Controller	1.10
1.2.6	Test Standards	1.10
1.2.6.1	European Telecommunication Standard (ETS)	1.10
1.2.6.2	DTI CEPT Recommendation T/R-24-01	1.11
1.2.6.3	Telecommunications Industry Association	1.11
1.3	Product Codes	1.12
1.4	Standard Product Range	1.13

Figure	Title	Page
1.1	T855 Main Circuit Block Identification	1.4
1.2	T855 Front Panel Controls	1.4

replace A4 pages B1.3/B1.4 with A3 pages B1.3/B1.4

replace A4 pages B1.3/B1.4 with A3 pages B1.3/B1.4

1.1 Introduction

The T855 is a high performance microprocessor controlled FM base station receiver designed for single or multichannel operation in the 400 to 530MHz frequency range¹.

The receiver is a dual conversion superhet with a synthesised local oscillator. The first IF is 45.0MHz, allowing exceptionally high spurious signal rejection to be achieved in the receiver front end. The second IF section (455kHz) combines amplitude limiting, detection and audio preamplification within a single integrated circuit. It also drives carrier and noise level detectors for signal strength indication and gating the audio output. RSSI can be used to drive a carrier mute for audio output gating (link selectable) when the optional T800-04-0000 RSSI PCB is fitted.

The audio section output can be adjusted to deliver >+10dBm to a 600 ohm balanced output, and 1W to a local monitor speaker. A flat or de-emphasised audio response is link selectable.

The synthesiser frequency is programmed via the serial communications port. Eight channel select lines are accessible via an additional D-range connector (D-range 2 - T800-03-0000) at the rear of the set.

All components except those on the VCO board are mounted on a single PCB. This is secured to a die-cast chassis which is divided into compartments to individually shield each section of circuitry. Access to both sides of the main PCB is obtained by removing each of the two chassis covers. There is provision within the chassis to mount small option PCBs.

The front panel controls include gating sensitivity, line level, monitor volume and a monitor mute switch.

The T855 has a width of 60mm and occupies a single space in a Tait rack frame, which has the ability to accommodate up to seven standard modules.

1. Although capable of operating over the 400-530MHz frequency range, the T855 has a 5MHz switching range (see [Section 1.2.3](#) and [Section 3.1](#)).

1.2 Specifications

1.2.1 Introduction

The performance figures given are minimum figures, unless otherwise indicated, for equipment tuned with the maximum switching range and operating at standard room temperature (+22°C to +28°C) and standard test voltage (13.8V DC).

Where applicable, the test methods used to obtain the following performance figures are those described in the EIA and ETS specifications. However, there are several parameters for which performance according to the CEPT specification is given. Refer to [Section 1.2.6](#) for details of test standards.

Details of test methods and the conditions which apply for Type Approval testing in all countries can be obtained from Tait Electronics Ltd.

The terms "wide bandwidth", "mid bandwidth" and "narrow bandwidth" used in this and following sections are defined in the following table.

	Channel Spacing	Modulation 100% Deviation	Receiver IF Bandwidth
Wide Bandwidth	25kHz	±5.0kHz	15.0kHz
Mid Bandwidth	20kHz	±4.0kHz	12.0kHz
Narrow Bandwidth	12.5kHz	±2.5kHz	7.5kHz

Sensitivity and distortion figures are stated for standard operating conditions which includes audio de-emphasis. Note that the sensitivity and distortion figures will be degraded when flat audio is selected.

	Link PL210 ^a	Link PL220 ^a
De-emphasised Audio	1-2 (A-B)	2-3 (E-F)
Flat Audio	2-3 (B-C)	1-2 (D-E)

- a. The letters in this column refer to the identification letters screen printed onto the PCB beside each set of links.

1.2.2 General

Number Of Channels	.. 128 (standard) ¹	
Supply Voltage:		
Operating Voltage	.. 10.8 to 16V DC	
Standard Test Voltage	.. 13.8V DC	
Polarity	.. negative earth only	
Polarity Protection	.. crowbar diode	
Supply Current:		
Standby	.. 350mA	
Full Audio	.. 800mA	
Operating Temperature Range	.. -20°C to +60°C	
Dimensions:		
Height	.. 183mm	
Width	.. 60mm	
Length	.. 322mm	
Weight	.. 2.13kg	

1.2.3 RF Section

Frequency Range	.. 400-530MHz	
Type	.. dual conversion superheterodyne	
Frequency Increment	.. 5 or 6.25kHz	
Switching Range	.. 5MHz (i.e. ± 2.5 MHz from the centre frequency)	
Input Impedance	.. 50 ohms	
Frequency Stability (see also Section 1.4)	.. ± 1 ppm, -20°C to +60°C	
Signal Strength Indicator (RSSI optional)	.. -115dBm to -70dBm, 0 to 5V at approx. 10dB/V	

1. Additional channels may be factory programmed. Contact your nearest Tait Dealer or Customer Service Organisation.

IF Amplifiers:

Frequencies	.. 45MHz and 455kHz
Bandwidths-	
Narrow Bandwidth (NB)	.. 7.5kHz
Mid Bandwidth (MB)	.. 12kHz
Wide Bandwidth (WB)	.. 15kHz

Sensitivity (De-emphasised Response):

Single Channel	.. -117dBm
Bandsread (12dB Sinad)	.. -115dBm (across switching range)

Sensitivity (Flat Response):

Single Channel	.. -111dBm
Bandsread (12dB Sinad)	.. -109dBm (across switching range)

Signal+Noise To Noise Ratio (Typical):

	<u>De-emphasised</u>	<u>Flat</u>
RF Level -107dBm	.. 30dB (WB) 25dB (NB)	20dB (WB) 15dB (NB)
RF Level -83dBm (CEPT)	.. 54dB (MB) 50dB (NB)	49dB (MB) 45dB (NB)
RF Level -57dBm (EIA)	.. 55dB (WB)	55dB (WB)

Selectivity:

Narrow Bandwidth (± 12.5 kHz)	.. 83dB minimum, 85dB typical (CEPT)
Mid Bandwidth (± 20 kHz)	.. 87dB minimum, 90dB typical (CEPT)
Wide Bandwidth (± 25 kHz)	.. 87dB minimum, 90dB typical (CEPT)

Offset Selectivity (Canada only)	.. 20dB
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Spurious Response Attenuation	.. 100dB (typical)
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Intermodulation Response Attenuation:

Narrow Bandwidth	.. 80dB CEPT (typical)
Mid Bandwidth	.. 75dB CEPT (typical)
Wide Bandwidth	.. 85dB EIA (typical)

Blocking	.. 100dB
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Co-channel Rejection	.. 6dB
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Amplitude Characteristic	.. 3dB
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Spurious Emissions:

Conducted	.. -90dBm to 4GHz
Radiated	.. -57dBm to 1GHz -47dBm to 4GHz

1.2.4 Audio Section

1.2.4.1 General

Outputs Available	..	line and monitor
Frequency Response	..	flat or de-emphasised (750µs) (link selectable)
Flat Response:		
Bandwidth	..	67 to 3400Hz
Response	..	within +1, -2dB of output level at 1kHz
De-emphasised Response:		
Bandwidth	..	300 to 3400Hz
Response	..	within +1, -3dB of a -6dB/octave de-emphasis characteristic (ref. 1kHz)
Line Output:		
Power	..	adjustable to >+10dBm
Load Impedance	..	600 ohms
Distortion (@ -70dBm signal level):		
		<u>De-emphasised</u> <u>Flat</u>
Wide Bandwidth	..	≤2% ≤2%
Mid & Narrow Bandwidth	..	≤2% ≤4%
Monitor Output:		
Power	..	1W
Speaker Impedance	..	4 ohms
Distortion	..	≤3%
(@ -70dBm signal level, links set to de-emphasis)		

1.2.4.2 CTCSS

Linkable High Pass Filter:		
Bandwidth	..	350 to 3400Hz
Response	..	within +1, -3dB of level at 1kHz
Hum And Noise	..	30dB min. at 250.3Hz
(1kHz at 60% system deviation		35dB typical (67 to 240Hz)
CTCSS at 10% system deviation)		
Tone Detect:		
Tone Squelch Opening	..	better than 6dB sinad 3dB sinad at 250.3Hz (typical) 4dB sinad at 100Hz (typical)
Tone Detect Bandwidth	..	±2.1Hz accept (typical) ±3.0Hz reject (typical)
Response Time	..	150ms open and close (typical)

1.2.4.3 Mute Operation

Systems Available .. noise mute and carrier mute

Noise Mute:

Operating Range	.. 6-20dB sinad
Hysteresis	.. 1.5 to 6dB
Threshold	.. adjustable to -105dBm
Opening Time	.. 20ms
Closing Time	.. 50ms

Carrier Mute (Optional):

Operating Range	.. -115 to -80dBm
Hysteresis	.. 2 to 10dB
Opening Time	.. 5ms
Closing Time	.. 50ms

Note: The opening and closing times given above are for the standard setup (SL210 linked and SL220 not linked - refer to [Section 3.8](#)).

1.2.5 Microprocessor Controller**Auxiliary Ports:**

Open Drain Type	.. capable of sinking 2.25mA via 2k2 Ω
V _{ds} max.	.. 5V

1.2.6 Test Standards

Where applicable, this equipment is tested in accordance with the following standards.

1.2.6.1 European Telecommunication Standard**ETS 300 086 January 1991**

Radio equipment and systems; land mobile service; technical characteristics and test conditions for radio equipment with an internal or external RF connector intended primarily for analogue speech.

ETS 300 113 March 1996

Radio equipment and systems; land mobile service; technical characteristics and test conditions for radio equipment intended for the transmission of data (and speech) and having an antenna connector.

ETS 300 219 October 1993

Radio equipment and systems; land mobile service; technical characteristics and test conditions for radio equipment transmitting signals to initiate a specific response in the receiver.

ETS 300 279 February 1996

Radio equipment and systems; electromagnetic compatibility (EMC) standard for private land mobile radio (PMR) and ancillary equipment (speech and/or non-speech).

1.2.6.2 DTI CEPT Recommendation T/R-24-01**Annex I: 1988**

Technical characteristics and test conditions for radio equipment in the land mobile service intended primarily for analogue speech.

Annex II: 1988

Technical characteristics of radio equipment in the land mobile service with regard to quality and stability of transmission.

1.2.6.3 Telecommunications Industry Association**ANSI/TIA/EIA-603-1992**

Land mobile FM or PM communications equipment measurement and performance standards.

1.3 Product Codes

The three groups of digits in the T850 Series II product code provide information about the model, type and options fitted, according to the conventions described below.

The following explanation of T850 Series II product codes is not intended to suggest that any combination of features is necessarily available in any one product. Consult your nearest Tait Dealer or Customer Service Organisation for more information regarding the availability of specific models, types and options.

Model

The Model group indicates the basic function of the product, as follows:

T85X -XX-XXXX	T855 receiver
	T856 25W transmitter
	T857 exciter
	T858 50W power amplifier
	T859 100W power amplifier

Type

The Type group uses two digits to indicate the basic RF configuration of the product.

The first digit in the Type group designates the frequency range:

T85X- X -XXXX	'1' for 400-440MHz
	'2' for 440-480MHz
	'3' for 480-520MHz

The second digit in the Type group indicates the channel spacing:

T85X-XX- X -XXXX	'0' for wide bandwidth (25kHz)
	'3' for mid bandwidth (20kHz)
	'5' for narrow bandwidth (12.5kHz)

Options

T85X-XX- XXXX	The Options group uses four digits and/or letters to indicate any options that may be fitted to the product. This includes standard options and special options for specific customers. '0000' indicates a standard Tait product with no options fitted. The large number of options precludes listing them here.
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1.4 Standard Product Range

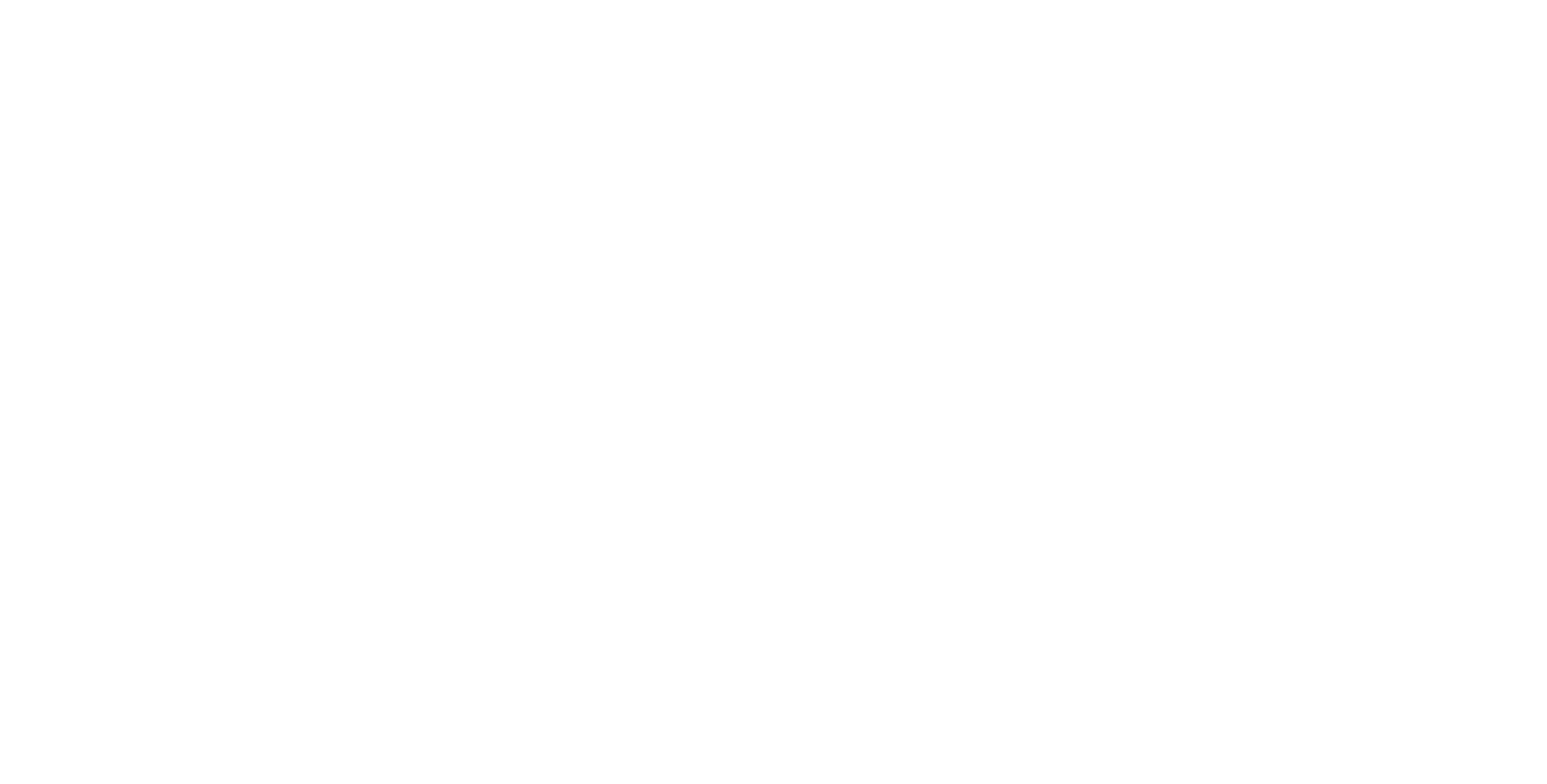
The following table lists the range of standard T855 types (i.e. no options fitted) available at the time this manual was published. Consult your nearest Tait Dealer or Customer Service Organisation for more information.

Frequency Range (MHz)		400-440		
IF Bandwidth (kHz)		7.5	12	15
TCXO	$\pm 1\text{ppm } -20^{\circ}\text{C to } +60^{\circ}\text{C}$	•	•	•
Receiver Type: T855-		15-0000	13-0000	10-0000

Frequency Range (MHz)		440-480		
IF Bandwidth (kHz)		7.5	12	15
TCXO	$\pm 1\text{ppm } -20^{\circ}\text{C to } +60^{\circ}\text{C}$	•	•	•
Receiver Type: T855-		25-0000	23-0000	20-0000

Frequency Range (MHz)		480-530	
IF Bandwidth (kHz)		7.5	15
TCXO	$\pm 1\text{ppm } -20^{\circ}\text{C to } +60^{\circ}\text{C}$	•	•
Receiver Type: T855-		35-0000	30-0000

You can identify the receiver type by checking the product code printed on a label on the rear of the chassis ([Figure 1.1](#) in Part A shows typical labels). You can further verify the receiver type by checking the placement of an SMD resistor in the table that is screen printed onto the PCB (refer to Section 6.1 for more details).



The photograph in [Figure 1.1](#) on the next page will help you to identify the main circuit blocks in the T855.

There is a similar photograph in [Figure 4.3](#) which shows the main tuning and adjustment controls.

Extending both these fold-outs will allow you to refer to both photographs while using the manual.

The photograph in [Figure 1.2](#) on the next page shows the T855 front panel controls.

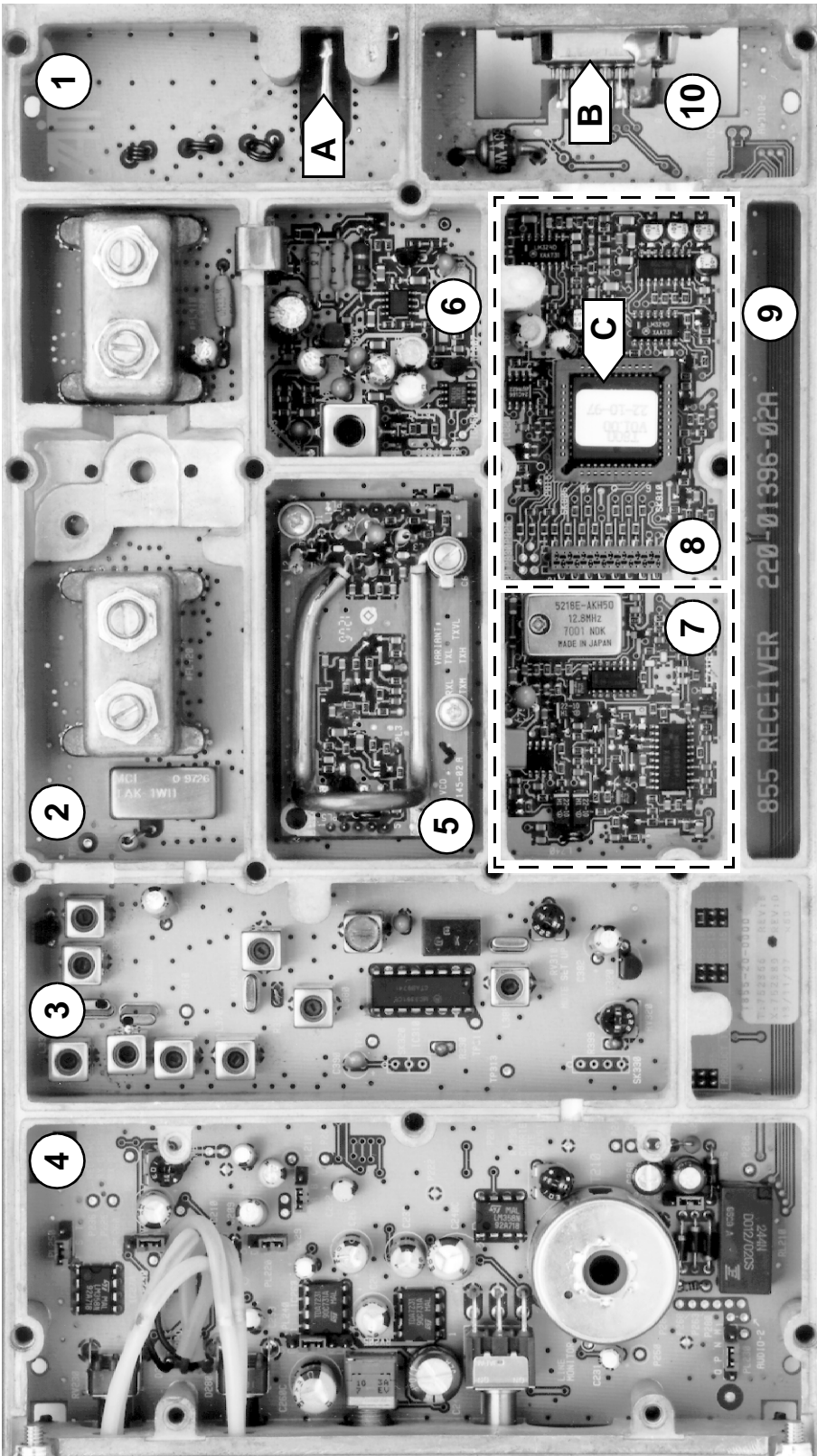


Figure 1.1 T855 Main Circuit Block Identification

- Key:**

 - 1 low pass filter
 - 2 receiver front end
 - 3 receiver IF
 - 4 audio processor
 - 5 VCO
 - 6 regulators
 - 7 synthesiser
 - 8 microcontroller and CTCSS
 - 9 duct for cabling to extra D-range (if fitted)
 - 10 D-range
 - A RF input
 - B D-range connector ("D-range 1" incl. audio out & DC in (refer to Section 1.2 in Part F))
 - C microcontroller

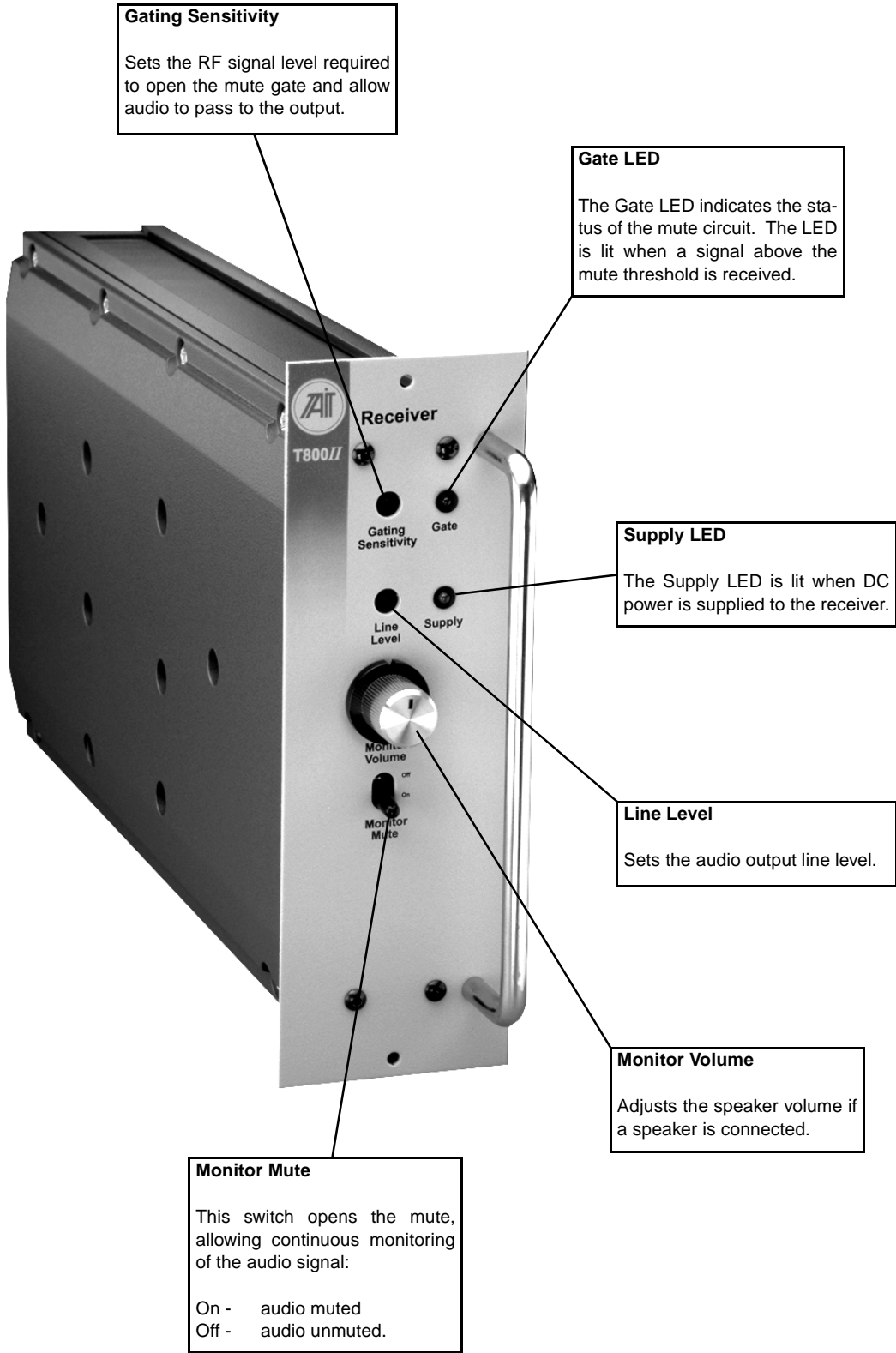


Figure 1.2 T855 Front Panel Controls

2 T855 Circuit Operation

This section provides a basic description of the circuit operation of the T855 receiver.

Note: Unless otherwise specified, the term "PGM800Win" used in this and following sections refers to version 2.00 and later of the software.

Refer to Section 6 where the parts lists, grid reference index and diagrams will provide detailed information on identifying and locating components and test points on the main PCB. The parts list and diagrams for the VCO PCB are in Part E.

The following topics are covered in this section.

Section	Title	Page
2.1	Introduction	2.3
2.2	Receiver Front End	2.4
2.3	Mixer	2.5
2.4	IF Circuitry	2.5
2.5	Noise Mute (Squelch)	2.6
2.6	Carrier Mute	2.6
2.7	Audio Processor	2.7
2.8	Power Supply And Regulators	2.8
2.9	Microcontroller	2.9
2.10	Synthesised Local Oscillator	2.10
2.11	VCO	2.11
2.12	Received Signal Strength Indicator (RSSI)	2.12

Figure	Title	Page
2.1	T855 High Level Block Diagram	2.3
2.2	T855 Front End, IF and Mute Block Diagram	2.4
2.3	T855 Audio Processor Block Diagram	2.7
2.4	T855 Power Supply And Regulators Block Diagram	2.8
2.5	T855 Microcontroller Block Diagram	2.9
2.6	T855 Synthesiser Block Diagram	2.10
2.7	T855 RSSI Block Diagram (T800-04-0000 RSSI PCB)	2.12

2.1 Introduction

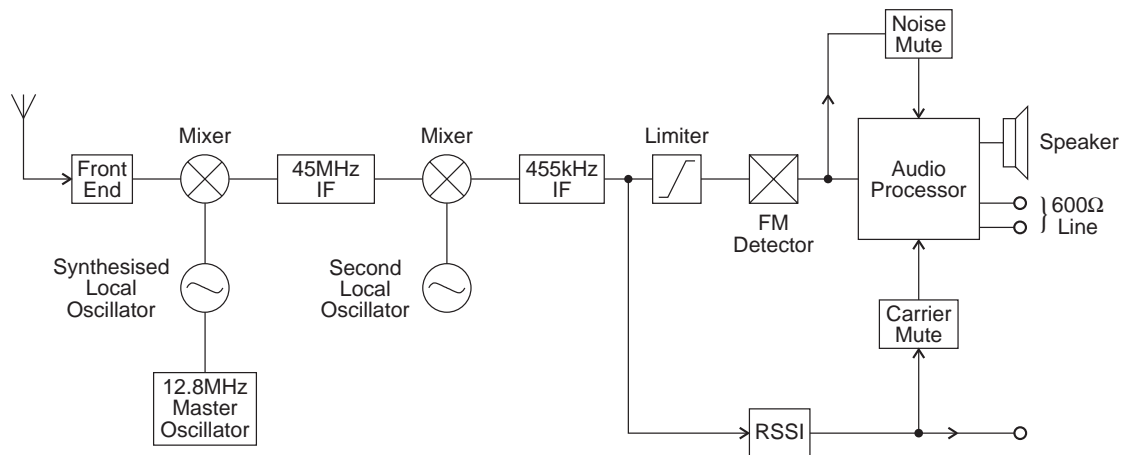


Figure 2.1 T855 High Level Block Diagram

The T855 receiver consists of a number of distinct stages:

- front end
- mixer
- synthesised local oscillator
- IF
- audio processor
- mute (squench)
- regulator circuits
- received signal strength indicator (RSSI).

These stages are clearly identifiable in [Figure 2.1](#). Refer to the circuit diagrams in Section 6 for further detail.

2.2 Receiver Front End

(Refer to the front end, IF section and audio processor circuit diagrams (sheets 4, 3 and 2 respectively) in Section 6.3.)

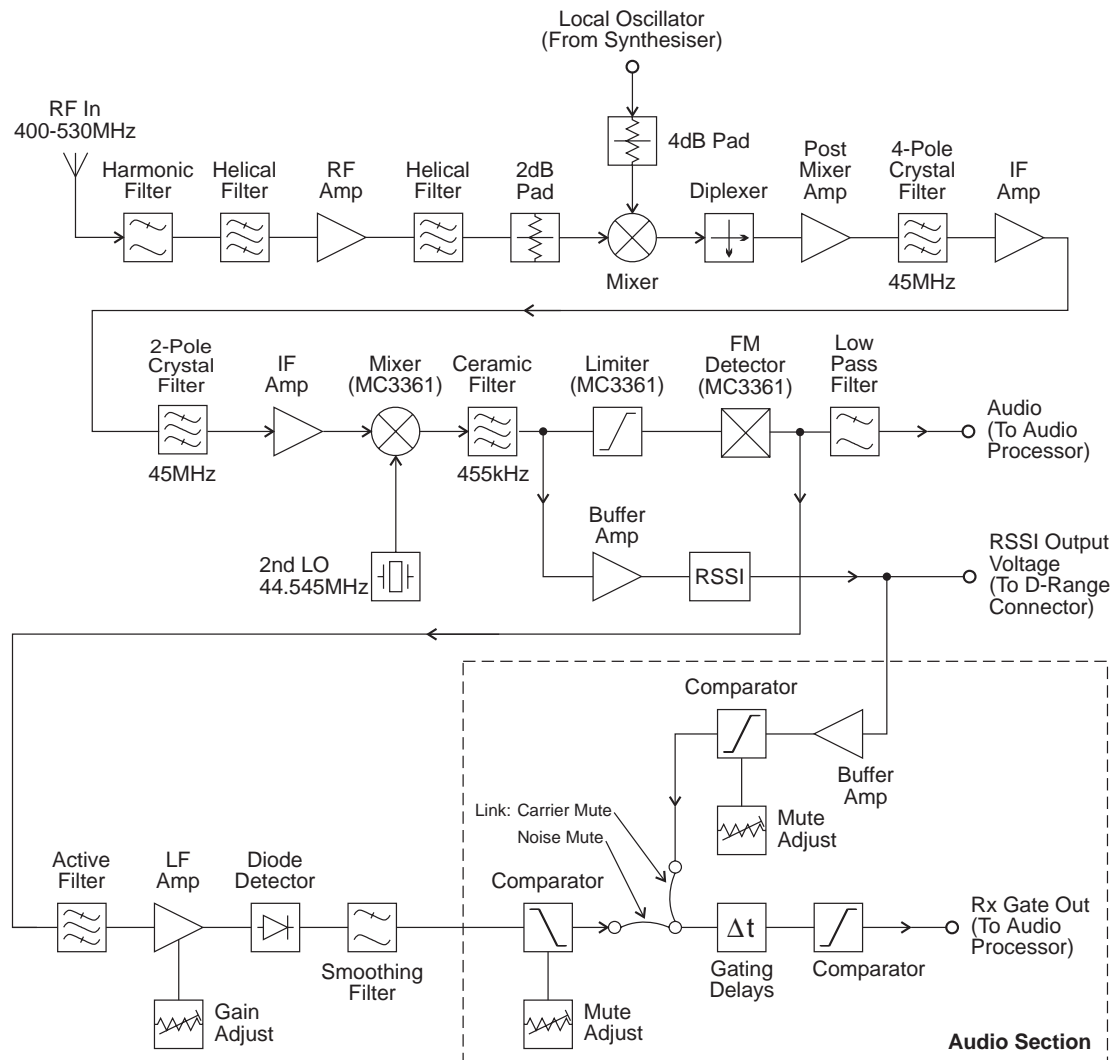


Figure 2.2 T855 Front End, IF and Mute Block Diagram

The incoming signal from the N-type antenna socket is fed through a 9-pole, low pass filter with a frequency of approximately 600MHz. This low loss filter (typically less than 0.5dB over 400-530MHz) provides excellent immunity to interference from high frequency signals.

The signal is then further filtered, using a high performance helical resonator doublet (FL410) which provides exceptional image rejection, before being amplified by approximately 8dB (Q410). The signal is then passed through a further helical filter doublet (FL420) before being presented to the mixer via a 2dB attenuator pad.

Each sub-block within the front end has been designed with 50 ohm terminations for ease of testing and fault finding. The overall gain from the antenna socket to the mixer input is approximately 2dB.

2.3 Mixer

(Refer to the front end circuit diagram (sheet 4) in Section 6.3 and [Figure 2.2.](#))

IC410 is a high level mixer requiring a local oscillator (LO) drive level of +17dBm (nominal). The voltage controlled oscillator (VCO) generates a level of +21dBm (typical) and this is fed to the mixer via a 5dB attenuator pad. A diplexer terminates the IF port of the mixer in a good 50 ohms, thus preventing unnecessary intermodulation distortion.

2.4 IF Circuitry

(Refer to the IF section circuit diagram (sheet 3) in Section 6.3 and [Figure 2.2.](#))

Losses in the mixer are made up for in a tuned, common gate, post mixer amplifier (Q310). Several stages of amplification and filtering are employed in the IF circuitry. The first crystal filter is a 4-pole device (&XF300) which is matched into 50 ohms on both its input and output ports. This stage is followed by a common base amplifier (Q320) whose output is matched into a 2-pole crystal filter (&XF301). The signal is then amplified using a high gain MOSFET amplifier (Q330), after which the signal is mixed down to 455kHz with the second crystal local oscillator (44.5455MHz).

The 455kHz signal is filtered using a 6-pole ceramic filter (&XF302) before being limited and detected. Q340 provides a buffered 455kHz output for use with the optional RF level detector (RSSI)

The second IF mixer, limiter and detector is in a 16-pin IC (IC310). Quadrature detection is employed, using L390, and the recovered audio on pin 9 of IC310 is typically 1V p-p for 60% system deviation.

2.5 Noise Mute (Squelch)

(Refer to the audio processor and IF section circuit diagrams (sheets 2 and 3 respectively) in Section 6.3 and [Figure 2.2](#).)

The noise mute operates on the detected noise outside the audio bandwidth. An operational amplifier in IC310 is used as an active band pass filter centred on 70kHz to filter out audio components. The noise spectrum is then further amplified in a variable gain, two-stage amplifier (Q350 & Q360) with additional filtering. The noise is then rectified (D310) and filtered to produce a DC voltage proportional to the noise amplitude. The lowest average DC voltage corresponds to a high RF signal strength and the highest DC voltage corresponds to no signal at the RF input.

The rectified noise voltage is compared with a threshold voltage set up on RV230, the front panel "Gating Sensitivity" potentiometer. Hysteresis is provided by the feedback resistor (R267) to prevent the received message from being chopped when the average noise voltage is close to the threshold. R281 and R280 determine the mute opening and closing times and, in combination with solder links SL210 and SL220, provide three time delay options (SL210 is linked as standard - refer to [Section 3.8](#)). The mute control signal at pin 7 of IC270 is used to disable the speaker and line audio outputs. The speaker output can be separately enabled for test purposes by operating the front panel mute disable switch, SW201.

2.6 Carrier Mute

(Refer to the audio processor and IF section circuit diagrams (sheets 2 and 3 respectively) in Section 6.3 and [Figure 2.2](#).)

A high level carrier mute facility is also available. The RSSI (refer to [Section 2.12](#)) provides a DC voltage proportional to the signal strength. This voltage is compared with a preset level, set up on RV235, and may be linked into the mute timing circuit using PL250. PL250 selects either the noise mute or the carrier mute. From this point both the noise and carrier mute circuits operate in the same manner, using common circuitry.

2.7 Audio Processor

(Refer to the audio processor circuit diagram (sheet 2) in Section 6.3.)

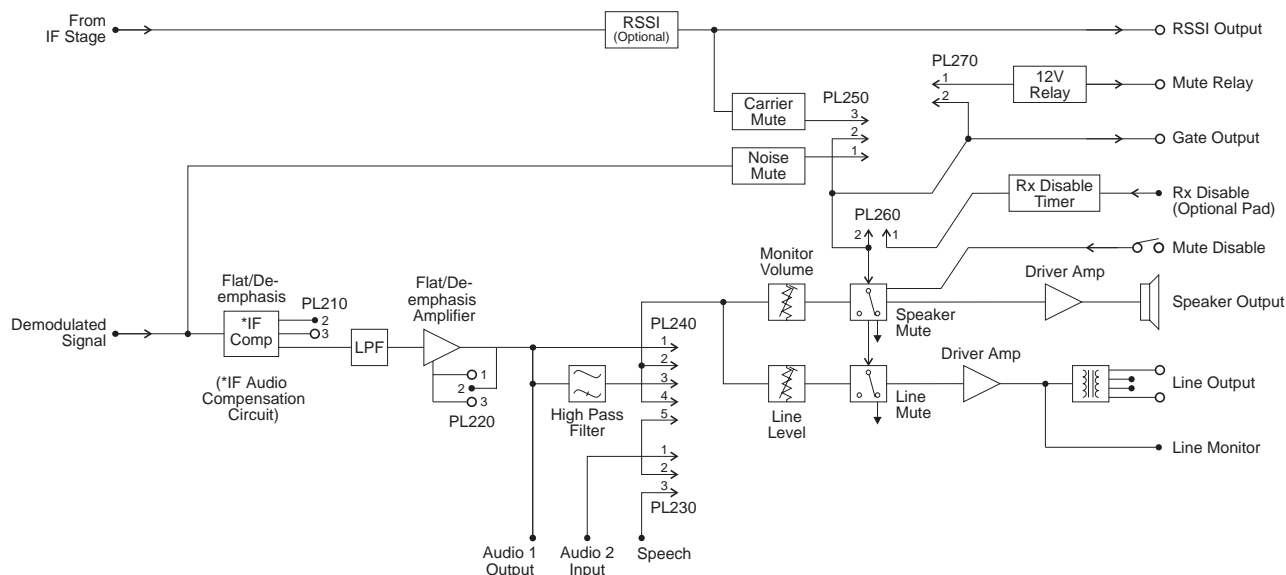


Figure 2.3 T855 Audio Processor Block Diagram

The recovered audio on pin 9 of IC310 is passed through a compensation network and processed in a third order elliptic active filter to give the required response. Linking (PL220 & PL210) is available to give either a flat or de-emphasised audio response, with de-emphasis giving a -6dB/octave roll off. The output of IC210 is split to provide separate paths for the speaker and line outputs. The "Audio 1", "Audio 2" and "Speech" lines allow access to the receiver's audio path for external signalling purposes (refer to [Section 3.5](#)).

The signals are passed to audio drive amplifiers IC240 and IC260. Under muted conditions the inputs of these amplifiers are shunted to ground via transistors Q230 and Q290 respectively. The audio output of IC240 has a DC component which is removed by C249, and this then drives a speaker directly. The output of IC260 is fed into a line transformer to provide a balanced 2-wire or 4-wire, 600 ohm output.

The speaker volume is set using the front panel "Monitor Volume" knob (RV205) and the line level is set using the recessed "Line Level" potentiometer (RV210).

The red front panel "Gate" LED (D250) indicates the status of the mute circuit. When a signal above the mute threshold is received, the LED is illuminated. The "Monitor Mute" switch (SW201) on the front panel opens the mute, allowing continuous monitoring of the audio signal (on = audio muted; off = audio unmuted).

The mute control line is available on pad 234 ("RX GATE OUT") for control of external circuitry. A high (9V) on pad 234 indicates that the audio is disabled and a low (0V) indicates that a signal above the mute threshold level is being received.

The audio can also be disabled using the "RX-DISABLE" inputs, pads 225 or 228, having connected the "RX-DISABLE" link between pins 1 & 2 of PL260. An adjustable time delay (RV220) is provided on these lines. In order to disable the audio, either pad must be pulled to 0V (refer to [Section 1.4](#) in Part G).

An undedicated relay is provided (RL210) for transmitter keying or other functions and this can be operated from the mute line by linking PL270.

2.8 Power Supply And Regulators

(Refer to the regulators circuit diagram (sheet 6) in Section 6.3.)

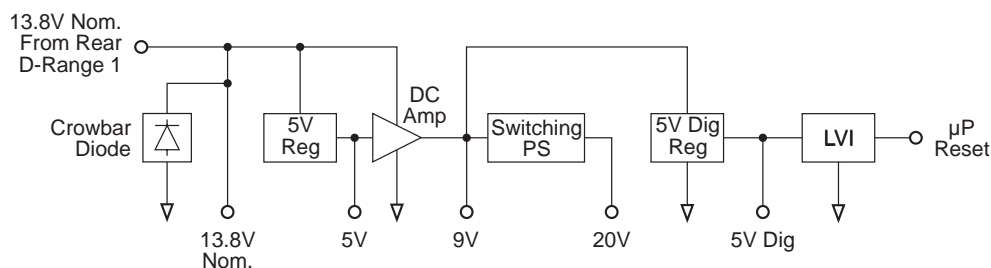


Figure 2.4 T855 Power Supply And Regulators Block Diagram

The T855 is designed to operate off a 10.8-16V DC supply (13.8V nominal). A 5.3V regulator (IC630) runs directly from the 13.8V rail, driving much of the synthesiser circuitry. It is also used as the reference for a DC amplifier (IC640, Q630 & Q620) which provides a medium current capability 9V supply.

A switching power supply, based on Q670 and Q660, runs off the 9V supply and provides a low current capability +20V supply. This is used to drive the synthesiser loop filter (IC740), giving a VCO control voltage of up to 20V.

The 13.8V supply drives both output audio amplifiers without additional regulation. A separate 5V regulator (IC610) drives the microprocessor and associated digital circuitry. The output of this regulator is monitored by the Low Voltage Interrupt (LVI) circuit (IC650).

A crowbar diode is fitted for protection against connection to a power supply of incorrect polarity. It also provides transient overvoltage protection.

Note: A fuse must be fitted in the power supply line for the diode to provide effective protection.

2.9 Microcontroller

(Refer to the microcontroller circuit diagram (sheet 8) in Section 6.3.)

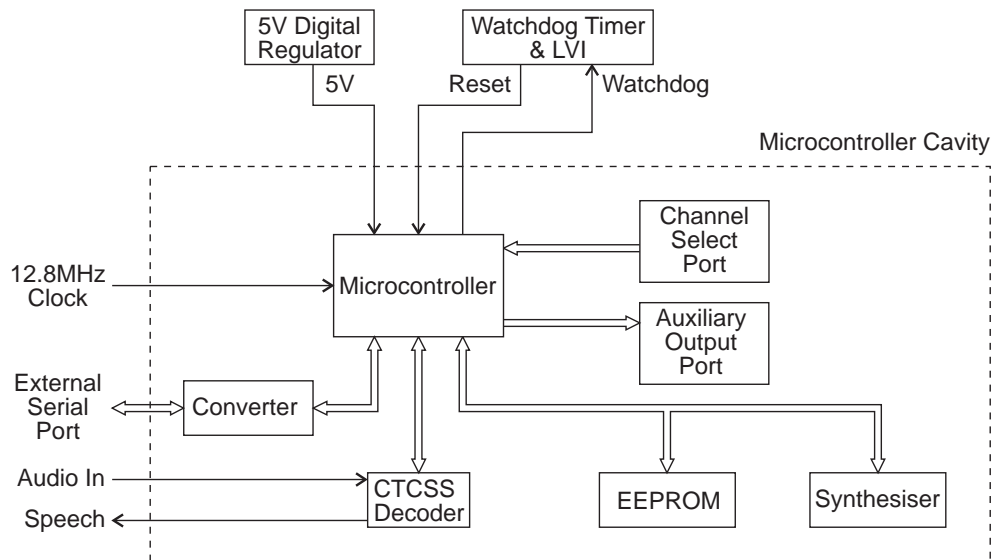


Figure 2.5 T855 Microcontroller Block Diagram

Overall system control of the T855 is accomplished by the use of a member of the 80C51 family of microcontrollers (IC810) which runs from internal ROM and RAM. Four ports are available for input/output functions.

Non-volatile data storage is achieved by serial communication with a 16kBit EEPROM (IC820). This serial bus is also used by the microcontroller to program the synthesiser (IC740).

The main tasks of the microcontroller are as follows:

- program the synthesiser;
- interface with the PGM800Win programming software at 9600 baud via the serial communication lines on D-range 1 (PL100) & D-range 2;
- monitor channel change inputs from D-range 2;
- generate timing waveforms for CTCSS detection;
- coordinate and implement timing control of the receiver;
- control the front panel "Supply" LED (refer to [Section 5.3](#)).

2.10 Synthesised Local Oscillator

(Refer to the synthesiser circuit diagram (sheet 7) in Section 6.3 and the VCO circuit diagram in Part E.)

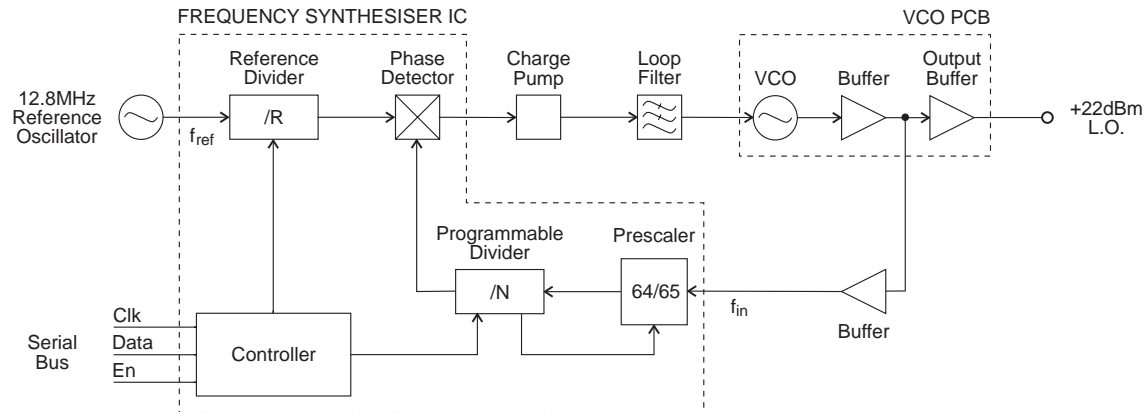


Figure 2.6 T855 Synthesiser Block Diagram

The synthesiser (IC740) employs a phase-locked loop (PLL) to lock a voltage controlled oscillator (VCO) to a given reference frequency. The synthesiser receives the divider information from the control microprocessor via a 3-wire serial bus (clock, data, enable). When the data has been latched in, the synthesiser processes the incoming signals from the VCO buffer (f_{in}) and the reference oscillator (f_{ref}).

A reference oscillator at 12.8MHz (IC700) is buffered (IC710) and divided down to 6.25kHz or 5kHz within the synthesiser IC (IC740).

A buffered output of the VCO is divided with a prescaler and programmable divider which is incorporated into the synthesiser chip (IC740). This signal is compared with the reference signal at the phase detector (also part of the synthesiser chip). The phase detector outputs drive a balanced charge pump circuit (Q760, Q770, Q775, Q780, Q785) and active loop filter (IC750, Q790) which produces a DC voltage between 0V and 20V to tune the VCO. This VCO control line is further filtered to attenuate noise and other spurious signals. Note that the VCO frequency increases with increasing control voltage.

2.11 VCO

(Refer to the VCO circuit diagram in Part E.)

The VCO transistor (Q1) operates in a common emitter, and uses a transmission line resonator (TL1). The transmission line is used in a two port configuration with varicaps positioned at one end. The VCO control voltage from the loop filter (IC750) is applied to the varicaps (D1 & D2) to facilitate tuning. The VCO output is coupled into a cascode amplifier stage (Q2 & Q3) which supplies +10dBm (nominal) output. Further amplification in Q5 brings the output drive level to +20dBm to drive the mixer.

A low level "sniff" is taken from the input to Q5 to drive the divider buffer to the synthesiser (IC740).

The VCO operates at the actual frequency required by the first mixer, i.e. there are no multiplier stages.

The VCO frequency spans from either 355-395MHz, 395-435MHz or 435-485MHz according to product type (refer to [Section 1.4](#)). The VCO is tuned to 45MHz below the desired receive frequency (low side injection) to produce a 45MHz IF signal at the output of the mixer.

2.12 Received Signal Strength Indicator (RSSI)

(Refer to the T800-04-0000 RSSI PCB circuit diagram in Section 6.2 and the IF section circuit diagram (sheet 3) in Section 6.3.)

The RSSI option PCB plugs directly into the main PCB (support circuitry being fitted as standard). It is fitted to the T855 whenever receiver signal strength monitoring is required, e.g. trunking or voting. Its function is to provide a DC voltage proportional to the signal level at the receiver input. The DC voltage is available at D-range 1 (PL100 pin 5).

The RSSI also provides the capability for high level signal strength muting, which may be selected on PL250 (refer to [Section 3.5](#)). The mute threshold may be set between -115dBm and -70dBm by RV235.

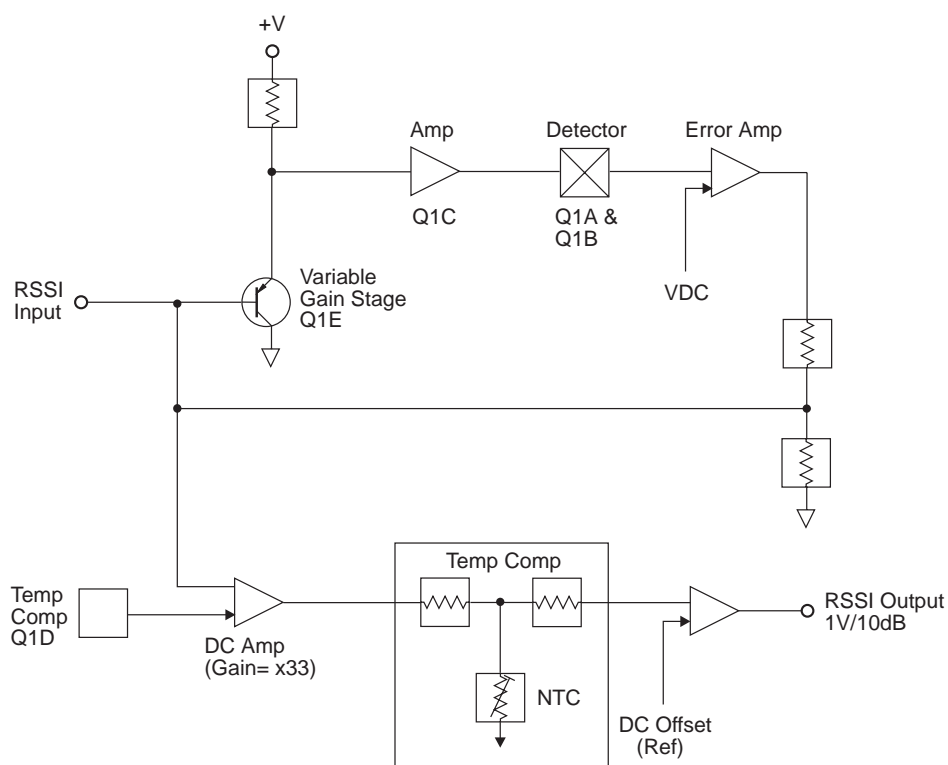


Figure 2.7 T855 RSSI Block Diagram (T800-04-0000 RSSI PCB)

The variable gain stage (Q1A) is a common emitter amplifier with its emitter grounded and the AGC control loop voltage applied to its base. Since the AGC loop will maintain a constant signal level at the collector, the gain of Q1 must be proportional to the incoming 455kHz signal level. The gain of Q1 is linearly proportional to its collector current which itself is exponentially related to the base-emitter voltage. Thus there is a logarithmic relationship between the base-emitter voltage and the gain. The circuit therefore produces a feedback voltage, and an output voltage, logarithmically related to the RF input signal.

The AGC loop is followed by a DC amplifier which provides level shifting, temperature compensation and gain to give a nominal 1V/10dB at the RSSI output. RV320 on the main PCB is used to set the RSSI voltage to a fixed value at a given RF input signal strength.

3 T855 Initial Tuning & Adjustment



Caution: This equipment contains CMOS devices which are susceptible to damage from static charges. Refer to [Section 1.2](#) in Part A for more information on anti-static procedures when handling these devices.

The following section describes both short and full tuning and adjustment procedures and provides information on:

- channel programming
- selecting the required audio links
- synthesiser alignment
- receiver front end and IF alignment
- noise and carrier level mute adjustment
- setting the line and monitor output levels
- setting up the RSSI.

Note: Unless otherwise specified, the term "PGM800Win" used in this and following sections refers to version 2.00 and later of the software.

Refer to [Figure 4.3](#) which shows the location of the main tuning and adjustment controls. Refer also to Section 6 where the parts lists, grid reference index and diagrams will provide detailed information on identifying and locating components and test points on the main PCB. The parts list and diagrams for the VCO PCB are in Part E.

Section	Title	Page
3.1	Introduction	3.3
3.2	Channel Programming	3.3
3.3	Test Equipment Required	3.4
3.4	Short Tuning Procedure	3.5
3.4.1	Introduction	3.5
3.4.2	Synthesiser Alignment	3.5
3.4.3	Front End Alignment	3.5
3.4.4	Mute Adjustment	3.6
3.4.4.1	Noise Mute	3.6
3.4.4.2	Carrier Level Mute	3.6
3.4.5	Line Amplifier Output	3.6
3.4.6	CTCSS	3.7
3.4.6.1	Decoder Operation	3.7
3.4.6.2	Opening Sinad	3.7
3.4.6.3	High Pass Filter	3.7
3.4.7	RSSI (If Fitted)	3.8

Section	Title	Page
3.5	Audio Processor Links	3.8
3.5.1	General	3.8
3.5.2	Audio Processor Linking Details For CTCSS	3.9
3.6	Synthesiser Alignment	3.10
3.7	Alignment Of Receiver Front End And IF	3.10
3.8	Gating Delay	3.12
3.9	Noise Mute Adjustment	3.12
3.10	Carrier Level Mute	3.12
3.11	Audio Processor	3.13
3.11.1	Line Amplifier Output	3.13
3.11.2	Monitor Amplifier Output (Speaker Output)	3.13
3.12	CTCSS	3.13
3.12.1	Decoder Operation	3.13
3.12.2	Opening Sinad	3.13
3.12.3	High Pass Filter	3.14
3.13	RSSI	3.14

Figure	Title	Page
3.1	T855 Test Equipment Set-up For Short Tuning Procedure	3.4
3.2	T855 Test Equipment Set-up For Full Tuning & Adjustment Procedure	3.4

3.1 Introduction

When you receive your T855 receiver it will be run up and working on a particular frequency (the "default channel")¹. If you want to switch to a frequency that is within the 5MHz switching range (i.e. $\pm 2.5\text{MHz}$ from the factory programmed frequency), you should only need to reprogram the receiver with the PGM800Win software (refer to the PGM800Win programming kit and [Section 3.2](#) below).

However, if you want to switch to a frequency outside the 5MHz switching range, you will have to reprogram and re-tune the receiver to ensure correct operation. In this case you should carry out the short tuning procedure described in [Section 3.4](#).

If you have carried out repairs or other major adjustments, you must carry out the full tuning and adjustment procedure described in this section (except for [Section 3.4](#)).

3.2 Channel Programming

You can program up to 128 channel frequencies into the receiver's EEPROM memory (IC820) by using the PGM800Win software package and an IBM™ PC. You can also use PGM800Win to select the receiver's current operating frequency (or "default channel").

If the receiver is installed in a rack frame, you can program it via the programming port in the speaker panel. However, you can also program the receiver before it is installed in a rack frame as follows:

- by using a T800-01-0010 calibration test unit;
- via D-range 1;
- via D-range 2 (standard T800-03-0000 auxiliary D-range only);
- via SK805 (internal Micromatch connector).

If you do not use the T800-01-0010, you will have to connect the PC to the receiver via a module programming interface (such as the T800-01-0004).

For a full description of the channel programming procedure, refer to the PGM800Win programming software user's manual.

Note: When an auxiliary D-range kit (D-range 2 - T800-03-0000) is fitted, you can also select a channel with an external switch, such as the DIP switch on the rack frame backplane PCB. Refer to Part C in the T800 Series Ancillary Equipment Service Manual (M800-00-101 or later issue) or consult your nearest Tait Dealer or Customer Service Organisation for further details.

1. Use the "Read Module" function in PGM800Win to find out what the default channel is.

3.3 Test Equipment Required

You will need the following test equipment:

- computer with PGM800Win installed
 - T800 programming kit
 - module programming interface (e.g. T800-01-0004 - optional)
 - 13.8V power supply
 - digital multimeter
 - audio signal generator
 - RF signal generator
 - audio voltmeter
 - sinad meter
 - oscilloscope
 - distortion meter
 - T800-01-0010 calibration test unit (optional)
 - 4Ω speaker (not needed if the calibration test unit is used)
- or RF test set (optional)
- not needed for short tuning procedure

Figure 3.1 and Figure 3.2 show typical test equipment set-ups (with and without a T800-01-0010 calibration test unit).

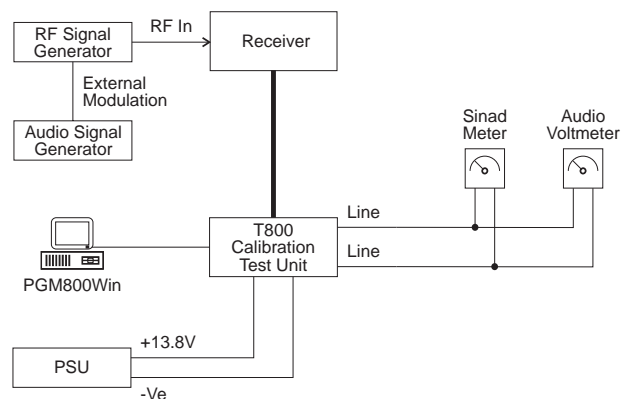


Figure 3.1 T855 Test Equipment Set-up For Short Tuning Procedure

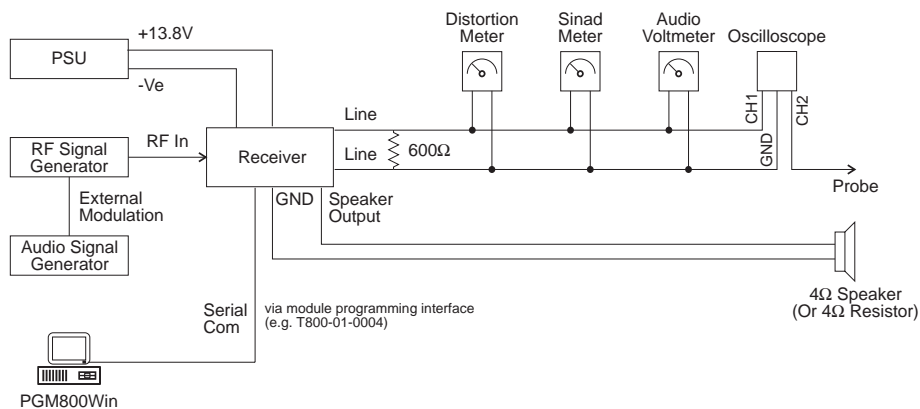


Figure 3.2 T855 Test Equipment Set-up For Full Tuning & Adjustment Procedure

3.4 Short Tuning Procedure

Use this procedure only if you want to reprogram the receiver to a frequency outside the 5MHz switching range and do not intend to carry out any other major adjustments or repairs.

3.4.1 Introduction

Reprogram the operating frequency as described in the PGM800Win programming kit (refer to [Section 3.2](#)).

Remove the top cover (nearest the handle).

Set up the test equipment as described in [Section 3.3](#).

Set the links in the audio processor section as required (refer to [Section 3.5](#)).

3.4.2 Synthesiser Alignment

- Connect a high impedance voltmeter to the long lead of L1 in the VCO (this measures the synthesiser loop voltage).
- **Single Channel** Tune VCO trimmer C6 for a synthesiser loop voltage of 10V.
- **Multichannel** Tune VCO trimmer C6 for a synthesiser loop voltage of 10V on the middle channel.
 If there is no middle channel, tune C6 so that the channels are symmetrically placed around a loop voltage of 10V.
 All channels should lie within the upper and lower limits of 16V and 3V respectively.
 Do not attempt to program channels with a greater frequency separation than the specified switching range of 5MHz.

3.4.3 Front End Alignment

Note 1: In this and following sections deviation settings are given first for wide bandwidth sets, followed by settings in brackets for mid bandwidth sets () and narrow bandwidth sets [].

Note 2: For multichannel operation align the receiver on a frequency in the middle of the required band.

Set RV230 (front panel gating sensitivity) fully clockwise.

Inject a strong on-channel RF signal with $\pm 3\text{kHz}$ deviation ($\pm 2.4\text{kHz}$) [$\pm 1.5\text{kHz}$] at

1kHz into the antenna socket and adjust the helical resonators #FL410 & #FL420 to give best sinad.

Continually decrease the RF level to maintain 12dB sinad.

Readjust FL410 and FL420 to give best sinad.

With PL210 and PL220 connected for de-emphasised audio response, the receiver sensitivity should be better than -117dBm, assuming that the audio levels are not being overdriven (refer to [Section 3.4.5](#)).

3.4.4 Mute Adjustment

3.4.4.1 Noise Mute

Connect pins 1 & 2 of PL250 to enable the noise mute.

Set the RF level to -105dBm with ± 3 kHz deviation (± 2.4 kHz) [± 1.5 kHz] at 1kHz.

Set RV230 (front panel gating sensitivity) fully anticlockwise.

Adjust RV310 (noise mute gain) fully clockwise to close the mute (if necessary turn off the RF signal and then turn it on again).

Rotate RV310 anticlockwise until the mute just opens.

Reset the signal generator for the required opening sinad and adjust RV230 clockwise until the mute just opens.

3.4.4.2 Carrier Level Mute

Connect pins 2 & 3 of PL250 to enable the carrier mute and disable the noise mute.

Apply an on-channel signal from the RF generator at the required mute opening level with ± 3 kHz deviation (± 2.4 kHz) [± 1.5 kHz] at ± 1 kHz.

Adjust RV235 (carrier mute) anticlockwise to close the mute (if necessary, momentarily turn off the RF), then slowly adjust it clockwise until the mute just opens. The mute should now open at this preset level.

3.4.5 Line Amplifier Output

Apply an on-channel signal from the RF generator at a level of -70dBm with ± 3 kHz deviation (± 2.4 kHz) [± 1.5 kHz] at 1kHz.

Adjust RV210 (front panel line level) to set the line level to the required output level.

3.4.6 CTCSS

3.4.6.1 Decoder Operation

Program a CTCSS tone on the default channel using PGM800Win.

Set the RF signal generator output to -70dBm.

Modulate the generator with both:

- a 1kHz tone at ± 3 kHz deviation (± 2.4 kHz) [± 1.5 kHz]
- and a CTCSS tone at the programmed frequency at ± 500 Hz deviation (± 400 Hz) [± 300 Hz].

Check that the receiver gate opens and the front panel "Gate" LED is on.

3.4.6.2 Opening Sinad

Adjust RV230 (front panel gating sensitivity) fully clockwise.

Reduce the RF signal level to -110dBm.

Observe the sinad meter and reduce the RF level until the receiver mute closes.

Slowly increase the signal level until the receiver mute just opens and stays open.

With PL240 pins 1 & 2 linked (G - H; high pass filter bypassed), check that the sinad is less than 6dB.

Reset the signal generator for the required opening sinad, adjust RV230 fully anti-clockwise, then clockwise until the mute just opens.

3.4.6.3 High Pass Filter

Set the audio processor links as follows:

Plug	Link		Function
PL210	1 - 2	A - B	de-emphasised response
PL230	2 - 3	N - P	audio from internal CTCSS speech filter
PL240	4 - 5	K - L	audio input via PL230 or I/O pad

Reset the RF signal generator output to -70dBm and note the line level (measurement A).

Reduce the 1kHz generator to zero output and measure the line level again (measurement B).

Check that measurement B is at least 30dB below measurement A.

3.4.7 RSSI (If Fitted)

The T800-04-0000 RSSI is an optional PCB which adds signal strength monitoring and high level mute facilities to the basic receiver.

Ensure the T800-04-0000 PCB is fitted in SK320 and SK330 in the IF compartment.

Apply an on-channel signal from the RF generator at a level of -110dBm with $\pm 3\text{kHz}$ deviation ($\pm 2.4\text{kHz}$) [$\pm 1.5\text{kHz}$] at 1kHz.

Adjust RV320 (RSSI level) to give 2.0V RSSI output on pin 5 of D-range 1 (PL100) when measured with a high impedance DMM.

3.5 Audio Processor Links

3.5.1 General

Use the following table to set up the audio processor to the configuration you require. You should set the audio processor links before carrying out the receiver alignment. The factory settings are shown in brackets [].

Plug	Link ^a		Function
PL210	[1 - 2] 2 - 3	[A - B] B - C	de-emphasised response flat response
PL220	1 - 2 [2 - 3]	D - E [E - F]	flat response de-emphasised response
PL230 ^b	1 - 2 [2 - 3] 3 - 4	M - N [N - P] P - Q	audio input via AUDIO-2 pad audio from internal CTCSS speech filter audio input via I/O pad P250
PL240 ^b	1 - 2 [2 - 3] or 3 - 4 4 - 5	G - H [H - J] or J - K K - L	bypass high pass filter 300Hz high pass filter in circuit audio input via PL230 or I/O pad
PL250	[1 - 2] 2 - 3	[R - S] S - T	noise mute carrier mute
PL260 ^c	1 - 2 [2 - 3]	U - V [V - W]	RX-DISABLE link not connected
PL270	[1 - 2] 2 - 3	[X - Y] Y - Z	relay link not connected

- The letters in this column and in the table in [Section 3.5.2](#) below refer to the identification letters screen printed onto the PCB beside each set of pins.
- Refer to [Section 3.5.2](#) for further details.
- Refer to [Section 1.4](#) in Part G for further details.

3.5.2 Audio Processor Linking Details For CTCSS

You must connect the audio processor links correctly according to the CTCSS option used, as shown in the table below.

CTCSS Option	PL230		PL240	
standard, no CTCSS	2 - 3	N - P	2 - 3	H - J
received CTCSS + speech passed to line output	3 - 4	P - Q	1 - 2	G - H
high pass filtered speech, internal CTCSS detection	2 - 3	N - P	4 - 5	K - L
external CTCSS detection	1 - 2	M - N	4 - 5	K - L

The conditions stated in the above table are defined as follows:

- standard, no CTCSS
 - no CTCSS or other sub-audio signalling used
 - audio bandwidth 300Hz to 3kHz
 - hum & noise -55dB
- received CTCSS tone + speech to line output
 - tone and speech transmitted down 600 ohm line
 - audio bandwidth 10Hz to 3kHz
 - hum & noise -45dB
- high pass filtered speech + internal CTCSS detection
 - 400Hz to 3kHz
 - hum & noise -30dB with 250.3Hz tone present
- external CTCSS detection
 - decoding performed through the receiver (but externally)
 - speech injected back into receiver via "AUDIO-2" and sent down 600 ohm line

Note 1: AUDIO-2 is available on D-range 1 (PL100) pin 7 via the link resistor R160. Although PL100 pin 7 is already assigned to SERIAL-COM, this can be disabled by removing R808.

Note 2: External CTCSS units can connect in series with the audio chain via AUDIO-1 and AUDIO-2.

3.6 Synthesiser Alignment

- Ensure that the receiver has been programmed with the required frequencies using the PGM800Win software.
- Connect a high impedance voltmeter to the long lead of L1 in the VCO (this measures the synthesiser loop voltage).
- **Single Channel** Tune VCO trimmer C6 for a synthesiser loop voltage of 10V.
- **Multichannel** Tune VCO trimmer C6 for a synthesiser loop voltage of 10V on the middle channel.
 If there is no middle channel, tune C6 so that the channels are symmetrically placed around a loop voltage of 10V.
 All channels should lie within the upper and lower limits of 16V and 3V respectively.
 Do not attempt to programme channels with a greater frequency separation than the specified switching range of 5MHz.
- The TCXO (=IC700) output frequency should be trimmed when the IF is tuned - refer to [Section 3.7](#).

3.7 Alignment Of Receiver Front End And IF

Note: In this and following sections deviation settings are given first for wide bandwidth sets, followed by settings in brackets for mid bandwidth sets () and narrow bandwidth sets [].

Align the synthesiser as instructed in [Section 3.6](#). For multichannel operation align the receiver on a frequency in the middle of the required band.

Set RV230 (front panel gating sensitivity) fully clockwise.

Inject a strong on-channel RF signal with $\pm 3\text{kHz}$ deviation ($\pm 2.4\text{kHz}$) [$\pm 1.5\text{kHz}$] at 1kHz into the antenna socket and adjust the helicals (#FL410 and #FL420) to give the best sinad.

Continually decrease the RF level to maintain 12dB sinad.

Roughly tune IF coils L310, L320, L330, L340, L350, L360, L370, L380, L385 and L390 for best sinad.

While maintaining a low level unmodulated RF input to the receiver, loosely couple into the first IF an additional high level signal at 45MHz - you will hear a beat note.

Trim the synthesiser TCXO (=IC710) for zero beat.

While maintaining the low level RF input to the receiver, loosely couple into the second IF an additional high level signal at 455kHz - you will hear a beat note.

Tune L385 for zero beat.

Note: If a second oscillator is not available, you can connect a frequency counter to IC710 pin 8 (i.e. after the TCXO buffer) via an oscilloscope probe to measure the TCXO frequency directly (12.8MHz). At this point the voltage level is approximately 4V p-p.

Readjust the front end helicals (#FL410 and #FL420) to give the best sinad.

Change the RF signal level to -75dBm and modulate with ± 3 kHz deviation (± 2.4 kHz) [± 1.5 kHz] at 1kHz.

Connect an oscilloscope probe to SK320 pin 3 (RSSI 455kHz input) and connect plugs PL210 and PL220 to give a flat audio response (refer to [Section 3.5](#)).

Readjust L310, L320, L330, L340, L350, L360, L370 and L380 to give a maximum amplitude response on the oscilloscope with minimal amplitude modulation.

Note: If you would like a more accurate method of tuning the IF, refer to the sweep tuning method described in [Section 5.5.5](#).

Further adjust these coils, along with L390, for minimum audio distortion, ensuring that the 455kHz level (on the oscilloscope) does not fall significantly.

Check that the distortion reading is:

wide bandwidth	$\leq 2\%$
mid and narrow bandwidth	$\leq 4\%$

If required, reconnect plugs PL210 and PL220 to give a de-emphasised audio response and check that the distortion reading is $\leq 2\%$ (all bandwidths).

Reduce the RF level until 12dB sinad is reached. The receiver sensitivity should be better than -117dBm (de-emphasised) or -111dBm (flat), assuming that the audio levels are not being overdriven (refer to [Section 3.11](#)).

3.8 Gating Delay

Two solder links (SL210 & SL220) are provided on the bottom of the PCB to allow three gate delay time options, as shown in the table below.

SL210	SL220	Closing Delay
linked	not linked	<50ms*
not linked	linked	<25ms
not linked	not linked	<20ms

*Factory setting.

3.9 Noise Mute Adjustment

Connect pins 1 & 2 of PL250 to enable the noise mute.

Align the receiver as instructed in [Section 3.6](#) and [Section 3.7](#).

Set the RF level to -105dBm with ± 3 kHz deviation (± 2.4 kHz) [± 1.5 kHz] at 1kHz.

Set RV230 (front panel gating sensitivity) fully anticlockwise.

Adjust RV310 (noise mute gain) fully clockwise to close the mute (if necessary turn off the RF signal and then turn it on again).

Rotate RV310 anticlockwise until the mute just opens.

Reset the signal generator for the required opening sinad and adjust RV230 clockwise until the mute just opens.

3.10 Carrier Level Mute

Connect pins 2 & 3 of PL250 to enable the carrier mute and disable the noise mute.

Apply an on-channel signal from the RF generator at the required mute opening level with ± 3 kHz deviation (± 2.4 kHz) [± 1.5 kHz] at ± 1 kHz.

Adjust RV235 (carrier mute) anticlockwise to close the mute (if necessary, momentarily turn off the RF), then slowly adjust it clockwise until the mute just opens. The mute should now open at this preset level.

3.11 Audio Processor

3.11.1 Line Amplifier Output

Apply an on-channel signal from the RF generator at a level of -70dBm with $\pm 3\text{kHz}$ deviation ($\pm 2.4\text{kHz}$) [$\pm 1.5\text{kHz}$] at 1kHz.

Adjust RV210 (front panel line level) to give an output of +10dBm on the 600 ohm line.

Check for any clipping or distortion on the oscilloscope.

Set the line level to the required output level.

3.11.2 Monitor Amplifier Output (Speaker Output)

Adjust RV205 (front panel monitor volume) to give an output of 2V rms into a 4 ohm resistive load.

Check for any clipping or distortion on the oscilloscope.

Switch to a 4 ohm speaker and adjust RV205 to the required level.

3.12 CTCSS

3.12.1 Decoder Operation

Program a CTCSS tone on the default channel using PGM800Win. |

Set the RF signal generator output to -70dBm.

Modulate the generator with both: |

- a 1kHz tone at $\pm 3\text{kHz}$ deviation ($\pm 2.4\text{kHz}$) [$\pm 1.5\text{kHz}$]
- and a CTCSS tone at the programmed frequency at $\pm 500\text{Hz}$ deviation ($\pm 400\text{Hz}$) [$\pm 300\text{Hz}$]. |

Check that the receiver gate opens and the front panel "Gate" LED is on.

3.12.2 Opening Sinad

Adjust RV230 (front panel gating sensitivity) fully clockwise.

Reduce the RF signal level to -110dBm.

Observe the sinad meter and reduce the RF level until the receiver mute closes.

Slowly increase the signal level until the receiver mute just opens and stays open.

With PL240 pins 1 & 2 linked (G - H; high pass filter bypassed), check that the sinad is less than 6dB.

Reset the signal generator for the required opening sinad, adjust RV230 fully anti-clockwise, then clockwise until the mute just opens.

3.12.3 High Pass Filter

Set the audio processor links as follows:

Plug	Link		Function
PL210	1 - 2	A - B	de-emphasised response
PL230	2 - 3	N - P	audio from internal CTCSS speech filter
PL240	4 - 5	K - L	audio input via PL230 or I/O pad

Reset the RF signal generator output to -70dBm and note the line level (measurement A).

Reduce the 1kHz generator to zero output and measure the line level again (measurement B).

Check that measurement B is at least 30dB below measurement A.

3.13 RSSI

The T800-04-0000 RSSI is an optional PCB which adds signal strength monitoring and high level mute facilities to the basic receiver.

Ensure the T800-04-0000 PCB is fitted in SK320 and SK330 in the IF compartment.

Align the receiver as instructed in [Section 3.6](#) and [Section 3.7](#).

Apply an on-channel signal from the RF generator at a level of -110dBm with ± 3 kHz deviation (± 2.4 kHz) [± 1.5 kHz] at 1kHz.

Adjust RV320 (RSSI level) to give 2.0V RSSI output on pin 5 of D-range 1 (PL100) when measured with a high impedance DMM.

4 T855 Functional Testing



Caution: This equipment contains CMOS devices which are susceptible to damage from static charges. Refer to [Section 1.2](#) in Part A for more information on anti-static procedures when handling these devices.

The following test procedures will confirm that the T855 has been tuned and adjusted correctly and is fully operational.

Note 1: In this and following sections deviation settings are given first for wide bandwidth sets, followed by settings in brackets for mid bandwidth sets () and narrow bandwidth sets [].

Note 2: Unless otherwise specified, the term "PGM800Win" used in this and following sections refers to version 2.00 and later of the software.

Refer to [Figure 4.3](#) for the location of the main tuning and adjustment controls, and to [Section 3.3](#) for the test equipment set-up. Refer also to Section 6 where the parts lists, grid reference index and diagrams will provide detailed information on identifying and locating components and test points on the main PCB. The parts list and diagrams for the VCO PCB are in Part E.

The following topics are covered in this section.

Section	Title	Page
4.1	Current Consumption	4.3
4.2	Sensitivity	4.3
4.3	Switching Range	4.3
4.4	Audio Distortion	4.4
4.5	Ultimate Signal-To-Noise Ratio	4.4
4.6	De-emphasised Audio Frequency Response	4.5
4.7	Noise Mute (If Linked In)	4.6
4.8	RSSI (If Fitted)	4.6
4.9	Carrier Level Mute (RSSI Fitted & Carrier Mute Linked In)	4.7

Figure	Title	Page
4.1	T855 De-emphasised Audio Frequency Response	4.5
4.2	T855 RSSI Voltage vs Signal Strength	4.6
4.3	T855 Main Tuning & Adjustment Controls	4.9

4.1 Current Consumption

Connect the T855 to a 13.8V power supply.

Rotate RV230 (front panel gating sensitivity) anticlockwise until the "Gate" LED is extinguished.

Set switch SW201 (front panel monitor mute) to the *on* position.

Check that the current in the 13.8V power cable is less than 350mA.

Rotate the RV230 clockwise until the "Gate" LED is lit.

Rotate RV210 (front panel line level) and RV205 (front panel monitor volume) to give maximum outputs.

Check that the current is less than 800mA.

Reset the front panel controls to the required settings.

4.2 Sensitivity

If CTCSS is enabled, disable the CTCSS tone by either programming the T855 for "No Tone" on the set channel, or by pulling pin 10 of D-range 2 (CTCSS ENABLE) low.

Apply an on-channel signal from the RF generator with $\pm 3\text{kHz}$ deviation ($\pm 2.4\text{kHz}$) [$\pm 1.5\text{kHz}$] at 1kHz.

Adjust the RF level to give 12dB audio sinad.

Check that the sensitivity is -117dBm or better.

4.3 Switching Range

Apply an on-channel signal from the RF generator at various frequencies within the 5MHz switching range (front end bandwidth), corresponding to pre-programmed channels.

Measure the sensitivity at each frequency as described in [Section 4.2](#).

Ensure that the sensitivity is -115dBm or better across the whole switching range.

4.4 Audio Distortion

The level of distortion measured at the line output (refer to [Figure 1.3](#) in Part F) gives an indication of the accuracy of the IF alignment.

Apply an accurate on-channel signal from the RF generator at a level of -70dBm with $\pm 3\text{kHz}$ deviation ($\pm 2.4\text{kHz}$) [$\pm 1.5\text{kHz}$] at 1kHz.

Adjust RV210 (front panel line level) to give +10dBm into 600 ohms.

Check that the distortion is approximately 1% THD.

Note: For a flat response, the distortion should always be better than 2% for wide bandwidth sets or 4% for mid and narrow bandwidth sets.

Adjust RV205 (front panel monitor volume) to give 2V rms into a 4 ohm resistive load.

Check that the distortion at the monitor output is better than 2% THD.

Reset the controls before proceeding to the next set of tests.

4.5 Ultimate Signal-To-Noise Ratio

Apply a signal from the RF generator at a level of -57dBm with $\pm 3\text{kHz}$ deviation ($\pm 2.4\text{kHz}$) [$\pm 1.5\text{kHz}$] at 1kHz.

Select de-emphasis on the links provided in the audio processor (refer to [Section 3.5](#)), and link pins 2 & 3 of PL240 to include the 300Hz filter.

Adjust RV210 (front panel line level) to provide +10dBm output.

Switch off the modulation, checking that the residual noise is lower than -45dBm (-43dBm) [-39dBm] at the line output (this corresponds to S/N of 55dB (53dB) [49dB] and is in accordance with EIA measurement conditions).

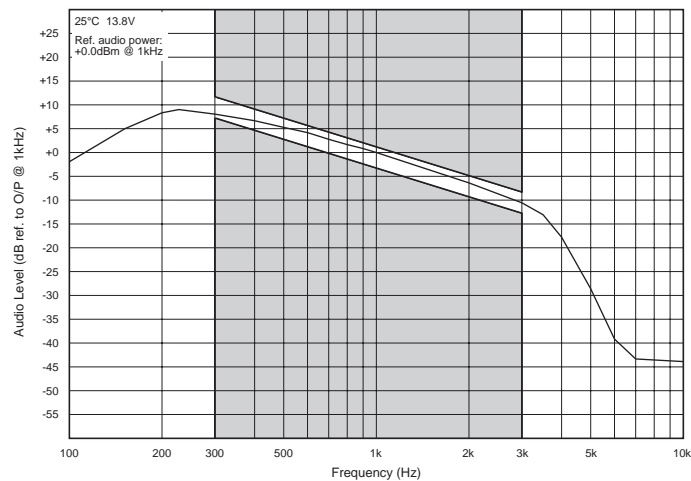
Note: You can make the measurement without the 300Hz high pass filter, but the result will be 10dB worse.

4.6 De-emphasised Audio Frequency Response

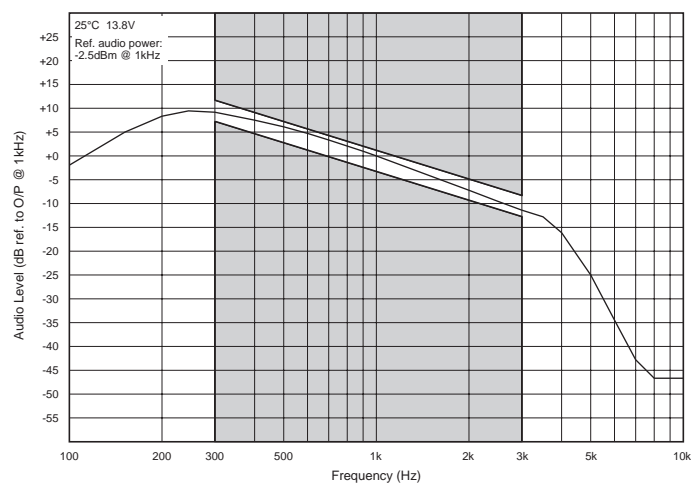
Set RV210 (front panel line level) to provide 0dBm output at 1kHz modulating frequency.

Sweep the modulating frequency, checking that the line audio response closely follows that shown in [Figure 4.1](#) - the limits should not be exceeded.

Wide Bandwidth



Mid Bandwidth



Narrow Bandwidth

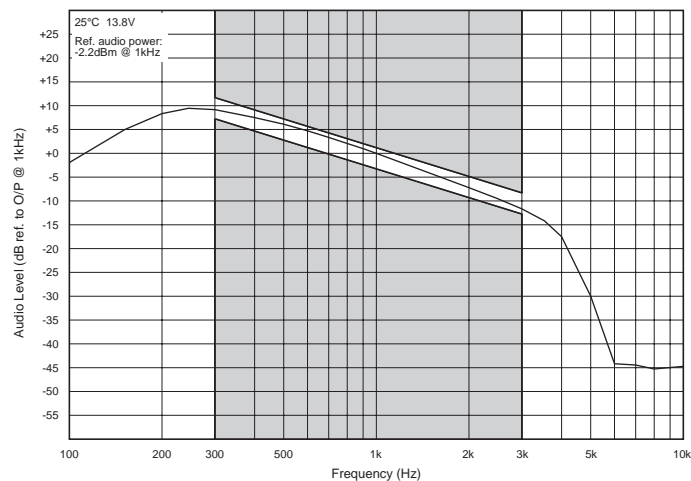


Figure 4.1 T855 De-emphasised Audio Frequency Response

4.7 Noise Mute (If Linked In)

Rotate RV230 (front panel gating sensitivity) fully anticlockwise.

Apply an on-channel signal from the RF generator at a level of -110dBm with ± 3 kHz deviation (± 2.4 kHz) [± 1.5 kHz] at 1kHz.

Increase the RF level in 1dB steps, checking that the mute opens for an RF input level of approximately -105dBm.

Turn the RF off and check that the mute closes.

Rotate RV230 clockwise and check that the mute opens.

Reset RV230 to give the required opening sinad.



Caution:

Some RF generators can cause a false opening of the mute because the generator produces a burst of noise when the attenuation range changes. To correct the problem you will have to change generators.

4.8 RSSI (If Fitted)

Apply an on-channel signal from the RF generator at a level of -110dBm with ± 3 kHz deviation (± 2.4 kHz) [± 1.5 kHz] at 1kHz.

Using a high impedance DMM, check that the RSSI output voltage on pin 5 of D-range 1 (PL100) is 2V (nominal).

Vary the RF level in 5dB steps and check that the RSSI output voltage changes at a rate of approximately 10dB/V over the range of -115dBm to -70dBm (refer to [Figure 4.2](#) for RSSI voltage vs signal strength).

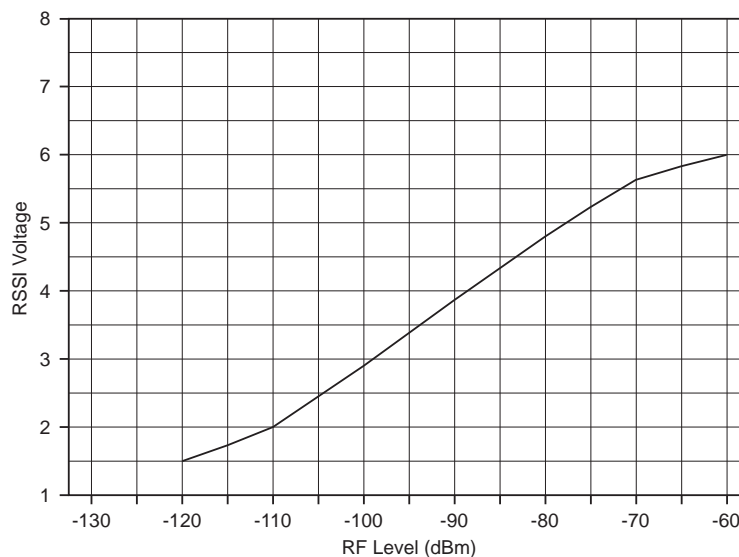


Figure 4.2 T855 RSSI Voltage vs Signal Strength

4.9 Carrier Level Mute (RSSI Fitted & Carrier Mute Linked In)

Apply an on-channel signal from the RF generator at a level of -120dBm with ± 3 kHz deviation (± 2.4 kHz) [± 1.5 kHz] at 1kHz.

Increase the RF level in 2dB steps and check that the mute opens at an RF level which corresponds with the preset level on RV235 (carrier mute), i.e. between -115dBm and -70dBm.

The photograph printed at right will help you to identify the main controls used in tuning and adjusting the T855.

There is a similar photograph in [Figure 1.1](#) which shows the main circuit blocks.

Extending both these fold-outs will allow you to refer to both photographs while using the manual.

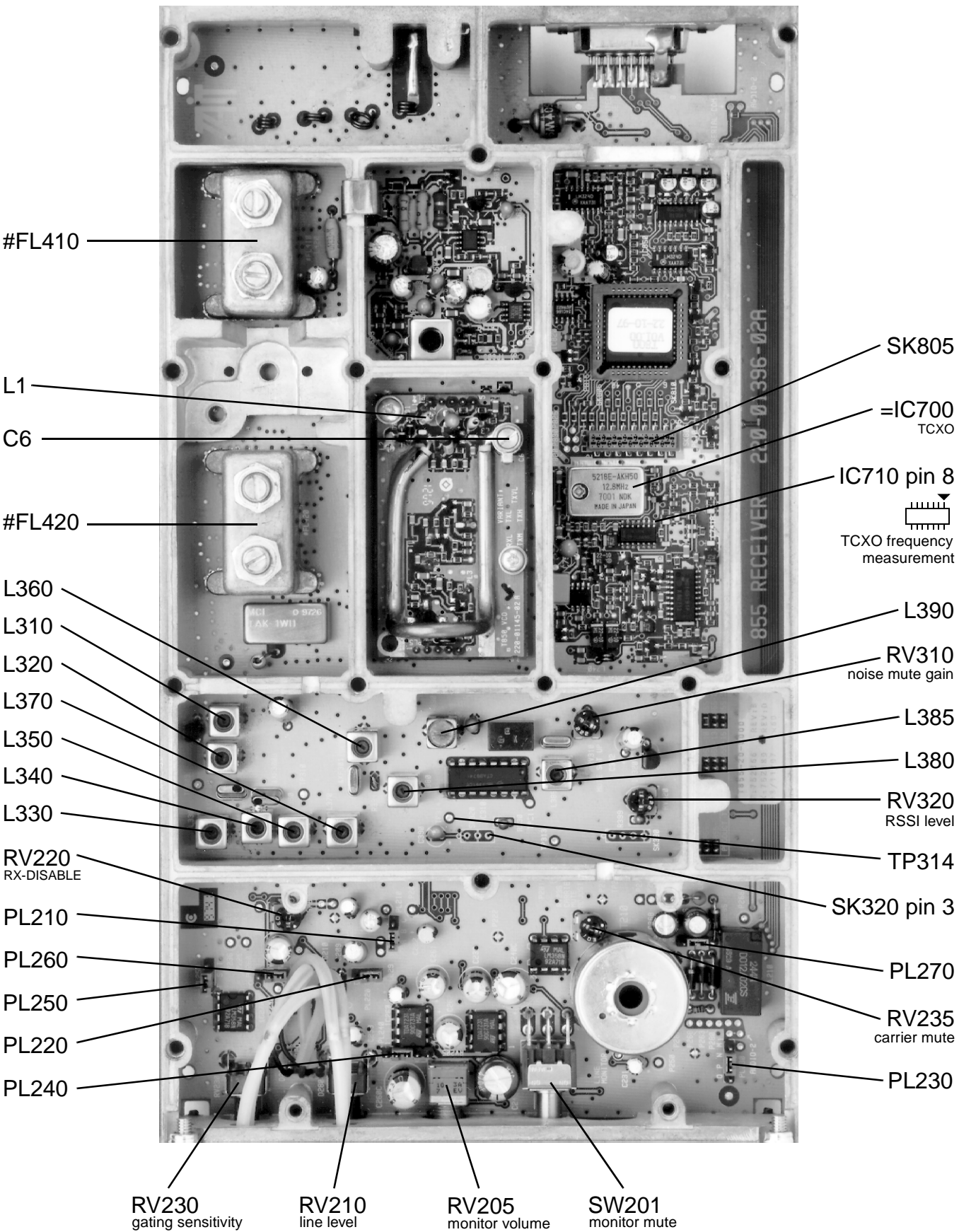


Figure 4.3 T855 Main Tuning & Adjustment Controls

5 T855 Fault Finding



Caution: This equipment contains CMOS devices which are susceptible to damage from static charges. Refer to [Section 1.2](#) in Part A for more information on anti-static procedures when handling these devices.

The following test procedures and fault finding flow charts may be used to help locate a hardware problem, however they are by no means a complete fault finding procedure. If you still cannot trace the fault after progressing through them in a logical manner, contact your nearest Tait Dealer or Customer Service Organisation. If necessary, you can get additional technical help from Customer Support, Radio Systems Division, Tait Electronics Ltd, Christchurch, New Zealand (full contact details are on page 2).

Note 1: In this and following sections deviation settings are given first for wide bandwidth sets, followed by settings in brackets for mid bandwidth sets () and narrow bandwidth sets [].

Note 2: Unless otherwise specified, the term "PGM800Win" used in this and following sections refers to version 2.00 and later of the software.

Refer to Section 6 where the parts lists, grid reference index and diagrams will provide detailed information on identifying and locating components and test points on the main PCB. The parts list and diagrams for the VCO PCB are in Part E.

The following topics are covered in this section.

Section	Title	Page
5.1	Visual Checks	5.3
5.2	Component Checks	5.3
5.3	Front Panel LED Indicator	5.3
5.4	DC Checks	5.4
5.4.1	Power Rails	5.4
5.4.2	VCO Locking	5.4
5.4.3	Mute Operation	5.4
5.5	RF Checks	5.5
5.5.1	VCO Frequency	5.5
5.5.2	RF Sensitivity	5.5
5.5.3	Oscillator Stability	5.6
5.5.3.1	TCXO	5.6
5.5.3.2	Second IF	5.6
5.5.4	Demodulator Output	5.6
5.5.5	IF Distortion	5.6

Section	Title	Page
5.6	PGM800Win Generated Errors	5.8
5.7	Fault Finding Charts	5.9
5.7.1	Microcontroller (IC810)	5.9
5.7.1.1	Basic Checks	5.9
5.7.1.2	Serial Communication	5.10
5.7.1.3	CTCSS Decode	5.11
5.7.2	Regulator	5.12
5.7.3	Synthesiser	5.13
5.7.4	Noise Mute	5.16
5.7.5	Carrier Mute	5.17
5.7.6	Receiver	5.18
5.7.7	Audio	5.19

Figure	Title	Page
5.1	RF Test Cable	5.5
5.2	IF Swept Response	5.7
5.3	Ceramic Filter Swept Response	5.7

5.1 Visual Checks

Remove the covers from the T855 and inspect the PCB for damaged or broken components, paying particular attention to the surface mounted devices (SMDs).

Check for defective solder joints. If repair or replacement of components is considered necessary, refer to Section 3 of Part A.

5.2 Component Checks

If you suspect a transistor is faulty, you can assess its performance by measuring the forward and reverse resistance of the junctions. Unless the device is completely desoldered, first make sure that the transistor is not shunted by some circuit resistance. Use a good quality EVM (e.g. Fluke 75) for taking the measurements (or a 20k ohm/V or better multimeter, using only the medium or low resistance ranges).

The collector current drawn by multi-junction transistors is a further guide to their performance.

If an IC is suspect, the most reliable check is to measure the DC operating voltages. Due to the catastrophic nature of most IC failures, the pin voltages will usually be markedly different from the recommended values in the presence of a fault. The recommended values can be obtained from either the circuit diagram or the component data catalogue.

5.3 Front Panel LED Indicator

The green "Supply" LED on the receiver front panel will flash according to the conditions described in the following table:

Flash Rate	Condition
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> </div> <div> <div style="text-align: center;">fast</div> <div style="text-align: center;">(1/3 sec. on/1/3 sec. off approx.)</div> </div> </div>	receiver is linked with PGM800Win
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> </div> <div> <div style="text-align: center;">slow</div> <div style="text-align: center;">(1 sec. on/1 sec. off approx.)</div> </div> </div>	VCO is out of lock - refer to Section 5.4.2
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> <div style="width: 10px; height: 10px; background-color: black; margin-bottom: 2px;"></div> </div> <div> <div style="text-align: center;">unequal</div> <div style="text-align: center;">(1/3 sec. on/1 sec. off approx.)</div> </div> </div>	microcontroller has detected an internal communications error - refer to Section 5.7.1

Where two or more conditions occur at the same time, the precedence is in the order shown above (i.e. receiver linked has the highest priority, followed by VCO error, then internal error).

5.4 DC Checks

5.4.1 Power Rails

Refer to the test points & options diagrams in Section 6 for test point locations, and to the regulator fault finding chart ([Section 5.7.2](#)) for fault diagnosis.

Check the 9V (TP602) and 13.8V (TP601) power supply test points in the regulator compartment with a DMM.

Check the 20V regulator output at the test point (TP603) in the regulator compartment.

Check the 5V regulator output at the test point (TP604) in the regulator compartment and on IC310 pin 4.

Check the 5V digital regulator output at the junction of C611A (+) and IC610 pin 2 in the regulator compartment.

5.4.2 VCO Locking

Using a DMM, monitor the VCO control voltage on the long lead of L1 on the VCO PCB.

If the synthesiser is locked and the VCO aligned, the voltage at this point should be between 3 and 16V.

If the VCO is not locked, refer to the synthesiser fault finding charts ([Section 5.7.3](#)).

5.4.3 Mute Operation

The front panel "Gate" LED will show the status of the mute circuitry and will turn on when a signal is received above the threshold level.

Check that PL250 is linked correctly:

noise mute	1-2
carrier mute	2-3.

Check that the mute gate opens as follows:

noise mute -	rotate RV230 (front panel gating sensitivity) fully clockwise and check that the front panel "Gate" LED turns on;
carrier mute -	rotate RV235 (carrier mute) fully clockwise and check that the front panel "Gate" LED turns on.

If the mute fails to operate correctly, refer to the noise mute fault finding chart ([Section 5.7.4](#)) or the carrier mute fault finding chart ([Section 5.7.5](#)).

5.5 RF Checks

5.5.1 VCO Frequency

Check that the VCO is phase locked (refer to [Section 5.4.2](#)).

Connect a frequency counter (level +20dBm) to the VCO input to the mixer (IC410).

Monitor the local oscillator frequency and check that it is 45MHz *below* the required receive frequency.

Refer to the synthesiser fault finding charts ([Section 5.7.3](#)) for further information.

5.5.2 RF Sensitivity

Ensure that the VCO is on the correct frequency and the receiver correctly aligned.

Check that the 12dB sinad sensitivity into the front end is as follows:

- 117dBm (de-emphasised response)
- 111dBm (flat response).

If the sensitivity is poor, you can trace the fault by measuring the sensitivity into successive circuit blocks. Prepare a test cable by connecting a 1nF capacitor to the end of a length of coax cable as shown in [Figure 5.1](#).

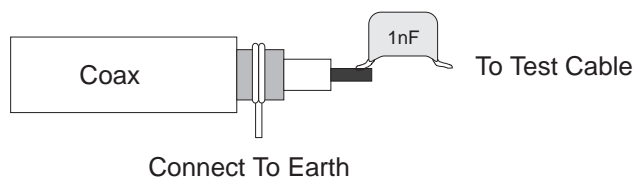


Figure 5.1 RF Test Cable

Note: Before using the test cable, ensure the coax braid is connected to an earth point on the PCB.

Using the RF test cable, apply a modulated 45MHz signal to the test breaks in the IF section, or an on-channel RF signal to the front end test breaks.

Check that the sensitivity at each test break is within 2dB of the levels shown on the circuit diagram.

Poor sensitivity indicates a fault in one of the circuit blocks following the test break.

Note: Poor sensitivity into the mixer can be caused by lack of drive level from the VCO (the drive level should be >+17dBm).

Refer to the receiver fault finding charts ([Section 5.7.6](#)) for further information.

5.5.3 Oscillator Stability

5.5.3.1 TCXO

While maintaining a low level unmodulated RF input to the receiver, loosely couple into the first IF an additional high level signal at 45MHz - you should now hear a constant low frequency beat note.

Tap the TCXO with a finger and replace it if the beat note permanently changes.

5.5.3.2 Second IF

While maintaining a low level unmodulated RF input to the receiver, loosely couple into the second IF an additional high level signal at 455kHz - you should now hear a constant low frequency beat note.

Adjust L385 for "zero beat".

5.5.4 Demodulator Output

Apply an on-channel RF signal modulated by 1kHz with $\pm 3\text{kHz}$ ($\pm 2.4\text{kHz}$) [$\pm 1.5\text{kHz}$] deviation at an amplitude of -65dBm.

Connect an oscilloscope probe (DC coupled) to TP314 (audio output).

Check that an audio signal of approximately 800mV peak to peak is present.

Optimum tuning of the quad coil (L390) for minimum audio distortion (with a "flat" audio response) should coincide with maximum audio amplitude and a DC level of approximately 1.7V.

5.5.5 IF Distortion

If the audio distortion is still high after careful IF alignment ([Section 3.7](#)), sweep the IF to investigate the bandpass response.

Apply an on-channel RF signal modulated at 10Hz (sine wave) with $\pm 12\text{kHz}$ ($\pm 9\text{kHz}$) [$\pm 6\text{kHz}$] deviation at an amplitude of -80dBm.

Connect the modulating 10Hz audio signal to the "X" input of an oscilloscope and observe the 455kHz IF input to SK320 pin 3 via a suitable RF probe on the "Y" input. Alternatively, if you have an RSSI PCB fitted, use an oscilloscope probe for the "Y" input to monitor the RSSI output voltage at pad P238 (RSSI test point) or pin 5 of D-range 1 (PL100). This will give a demodulated log response and only the top half of the wave forms shown in [Figure 5.2](#) and [Figure 5.3](#) will be displayed on the oscilloscope screen.

Note: The "X" input should be DC coupled.

Check that the swept response has a rounded top and no sharp non-linearities (refer to [Figure 5.2](#)).

Increase the RF level to -50dBm; the trace will now show the shape of the 455kHz ceramic filter (&XF302).

Check that the response has no sharp non-linearities.

If sharp non-linearities do occur, replace the filter and sweep again to confirm a satisfactory solution (refer to [Figure 5.3](#)).

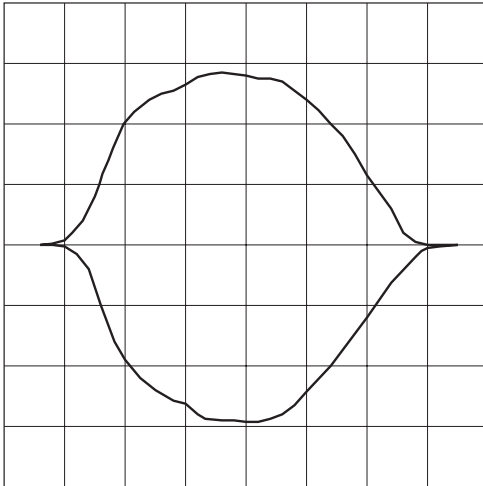


Figure 5.2 IF Swept Response

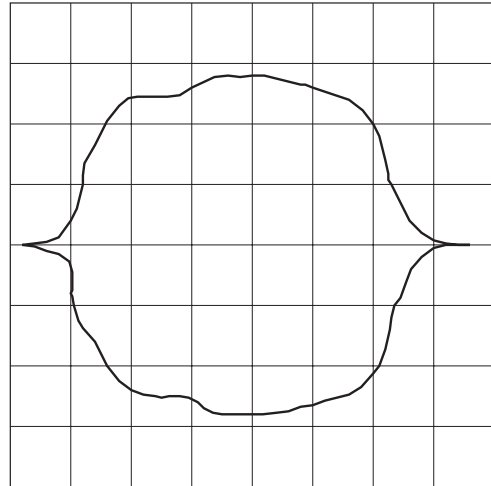


Figure 5.3 Ceramic Filter Swept Response

5.6 PGM800Win Generated Errors

The following errors are those most likely to occur using PGM800Win. Refer to the PGM800Win software user's manual for a complete list of error messages.

Channel Switch Set

The (programmed) default channel change was not accepted by the base station because a channel is selected externally. Try turning the external channel switch off to change the default channel in PGM800Win.

Synth Out Of Lock

The synthesiser received incorrect data, or the data was corrupted. Enter a frequency within the VCO switching range, or tune the VCO.

Internal Error

Data could not be read from the base station due to an internal error. Check for shorts or open circuits on the SDA, SCK, SYNTH and EPOT lines. The SDA, SCK and SYNTH are normally high.

Write/Read To An Unlinked Module

The link to the module does not exist. Undefined error.

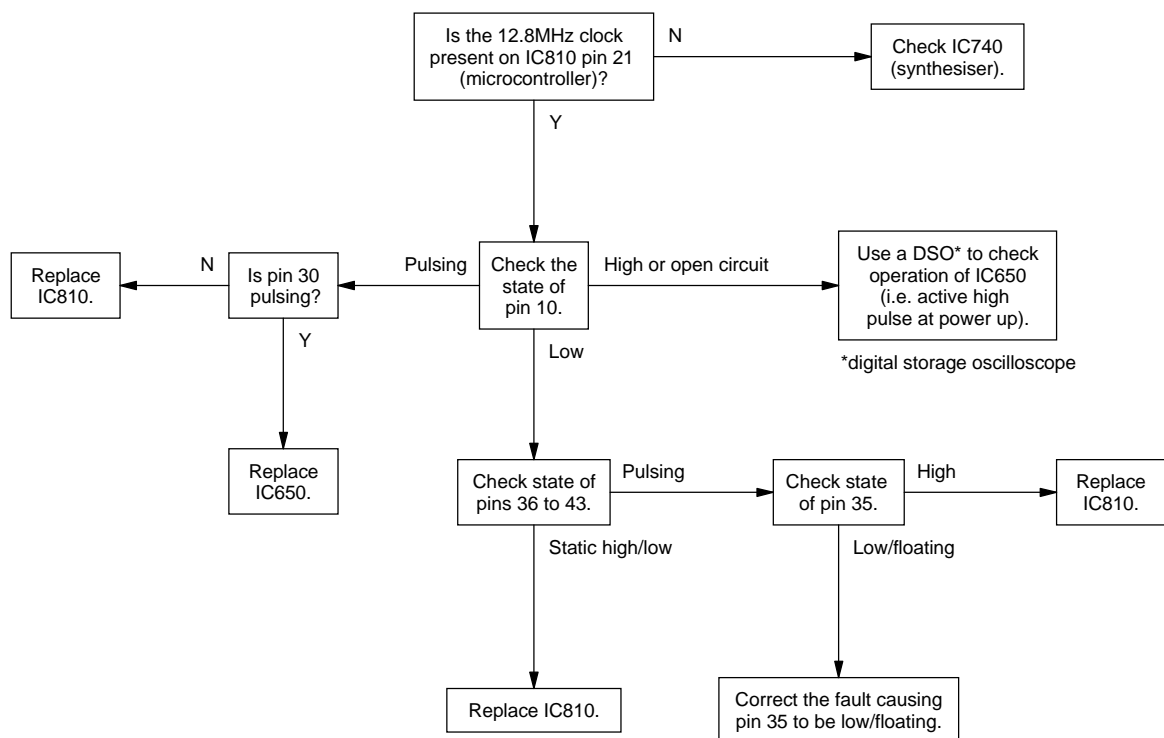
5.7 Fault Finding Charts

Note: The standard test point designations used in this section are as follows:

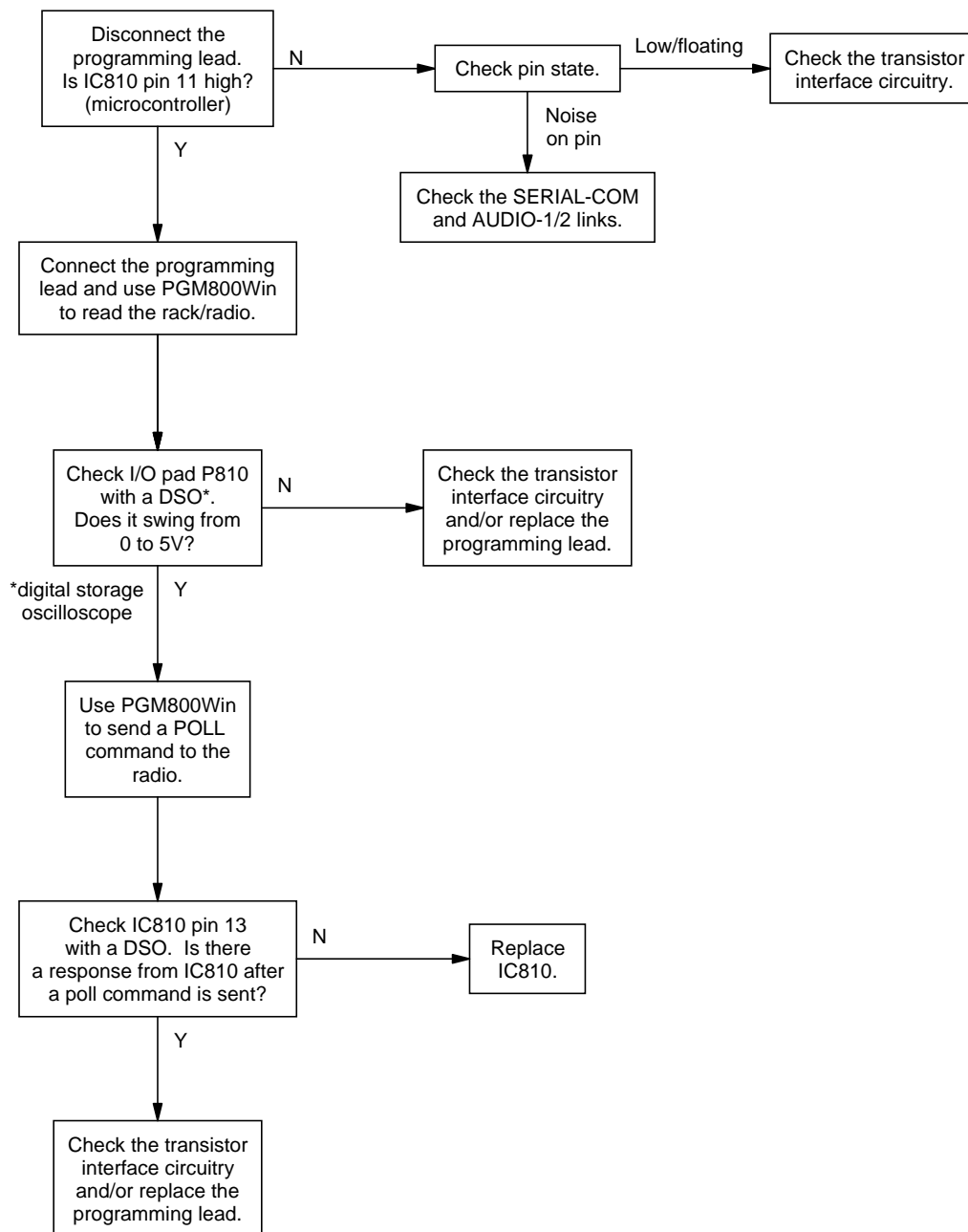
TP601	13.8V
TP602	9V
TP603	20V
TP604	5V

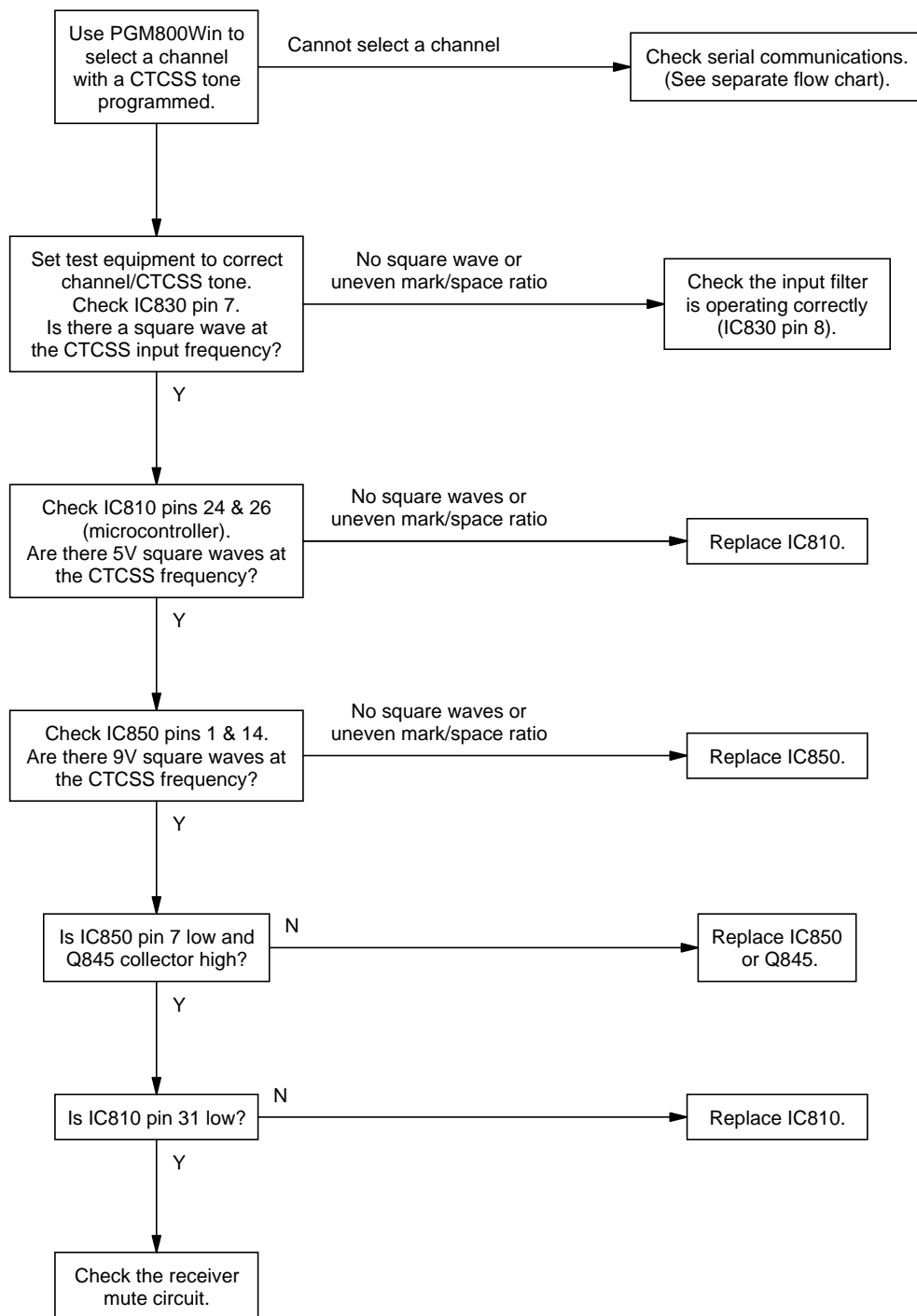
5.7.1 Microcontroller (IC810)

5.7.1.1 Basic Checks

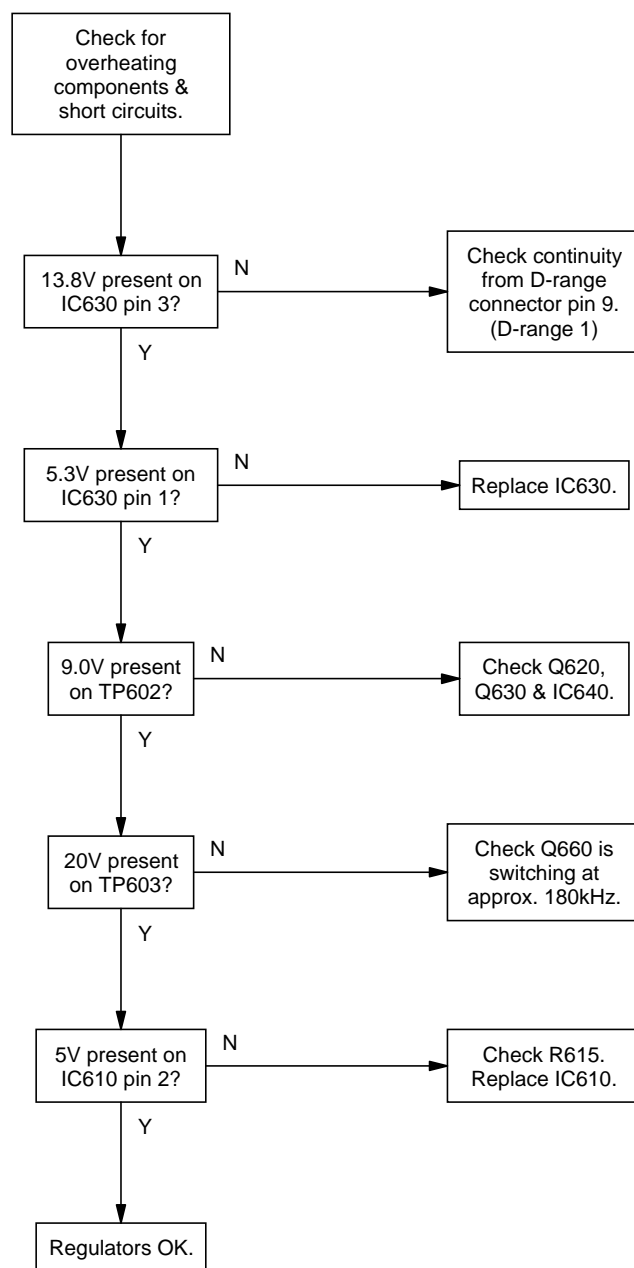


5.7.1.2 Serial Communication



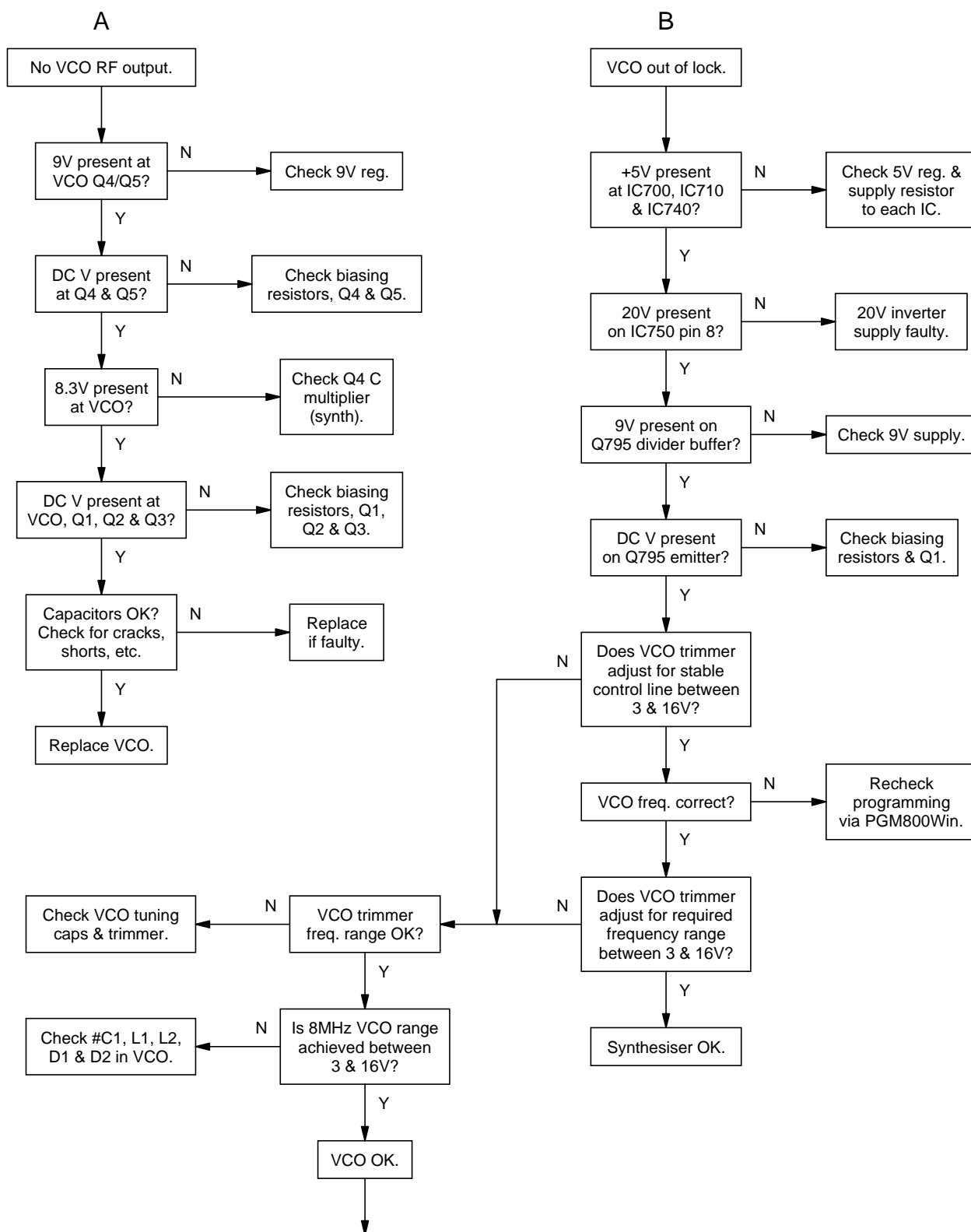
5.7.1.3 CTCSS Decode

5.7.2 Regulator

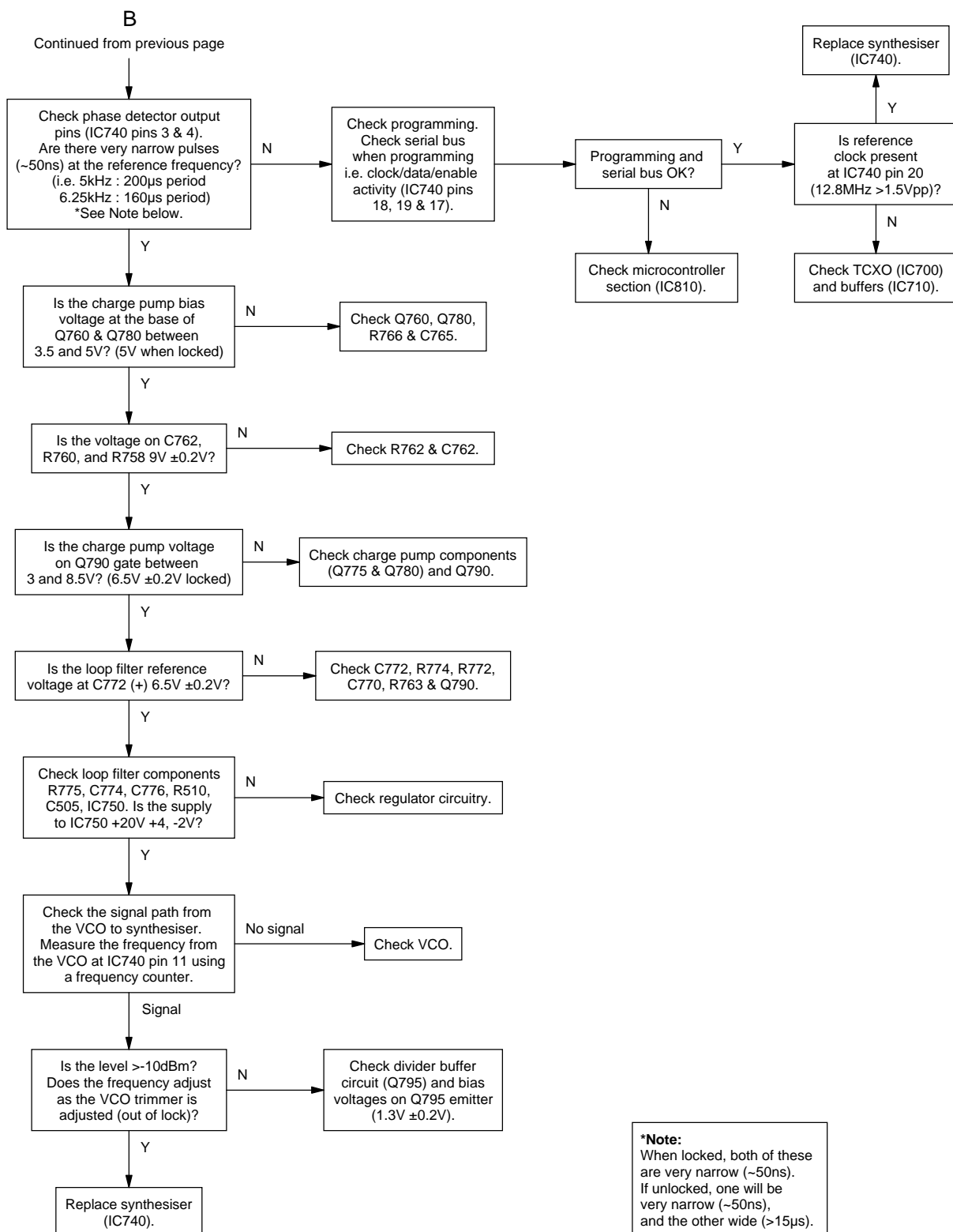


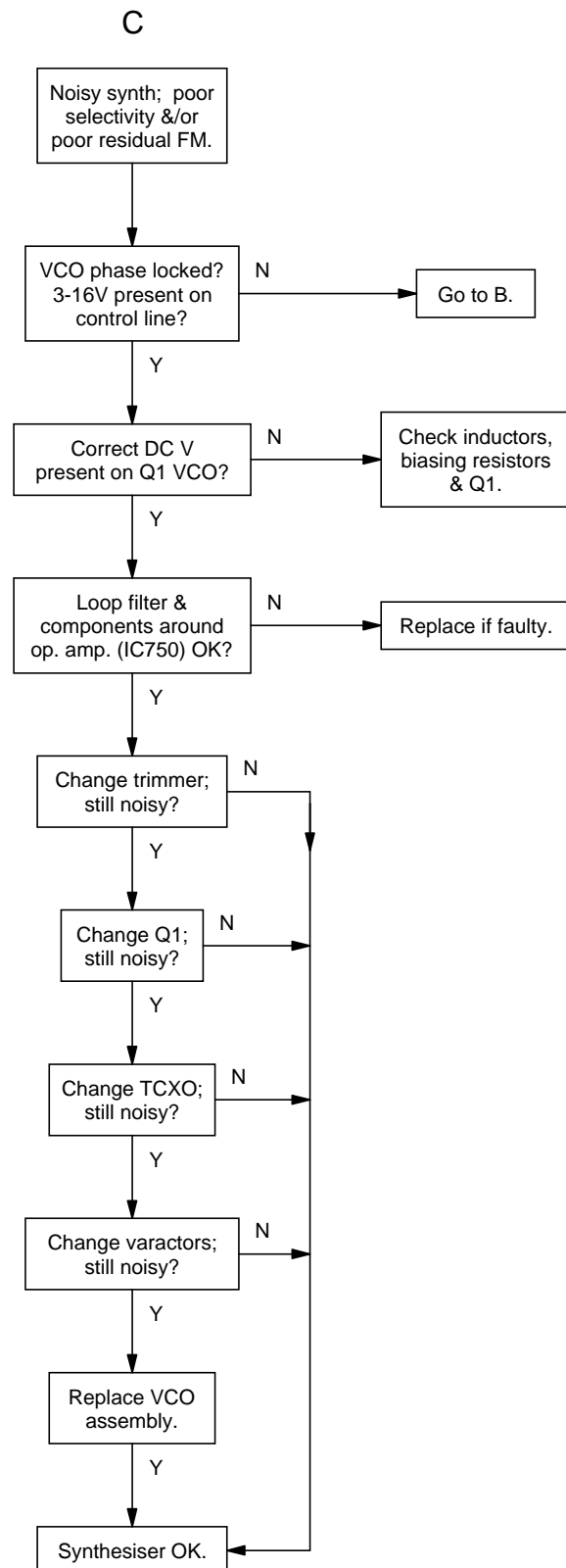
5.7.3 Synthesiser

Refer to the synthesiser circuit diagram (sheet 7) in Section 6 and the VCO circuit diagram in Part E.

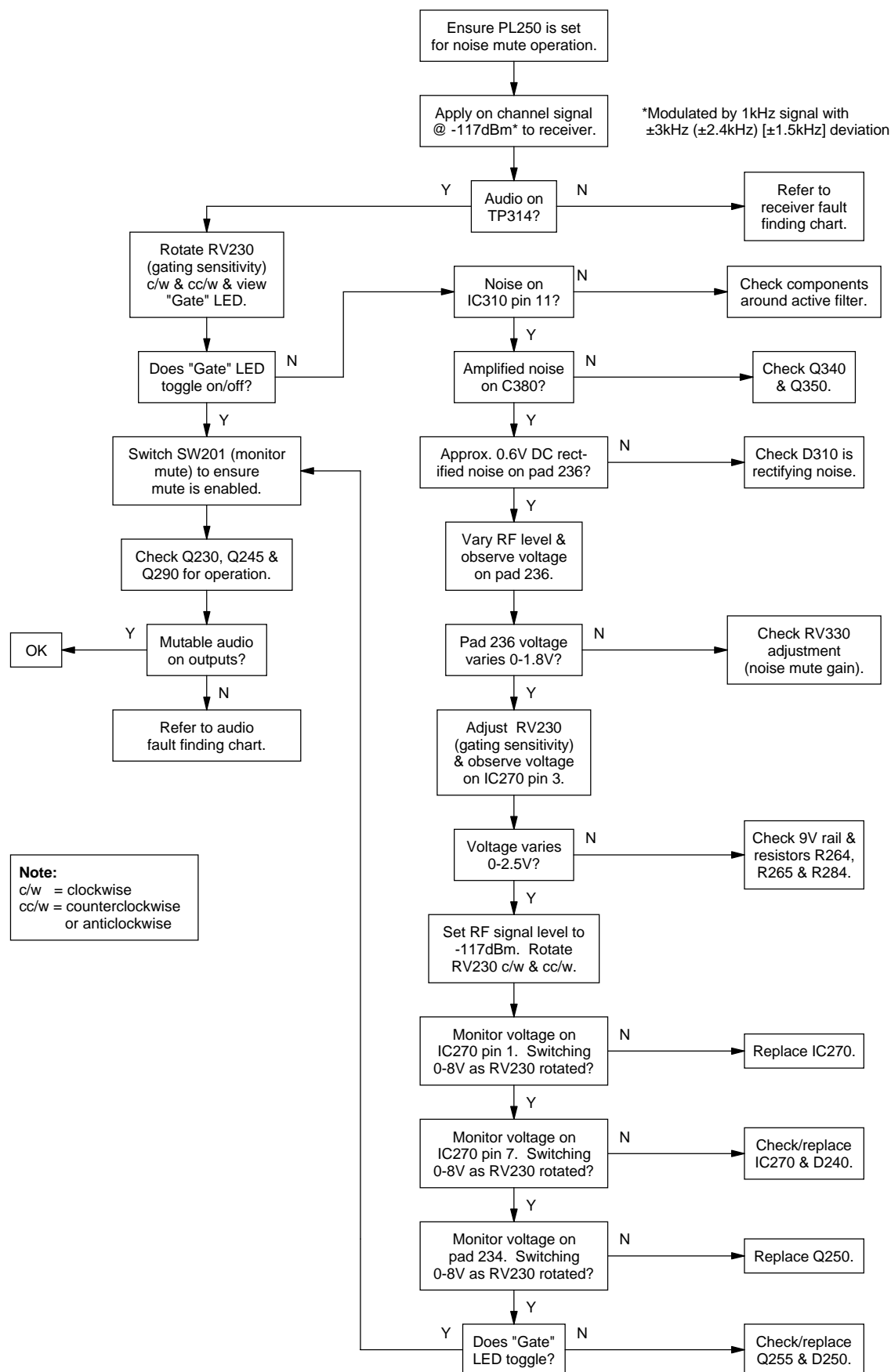


Continued on the next page

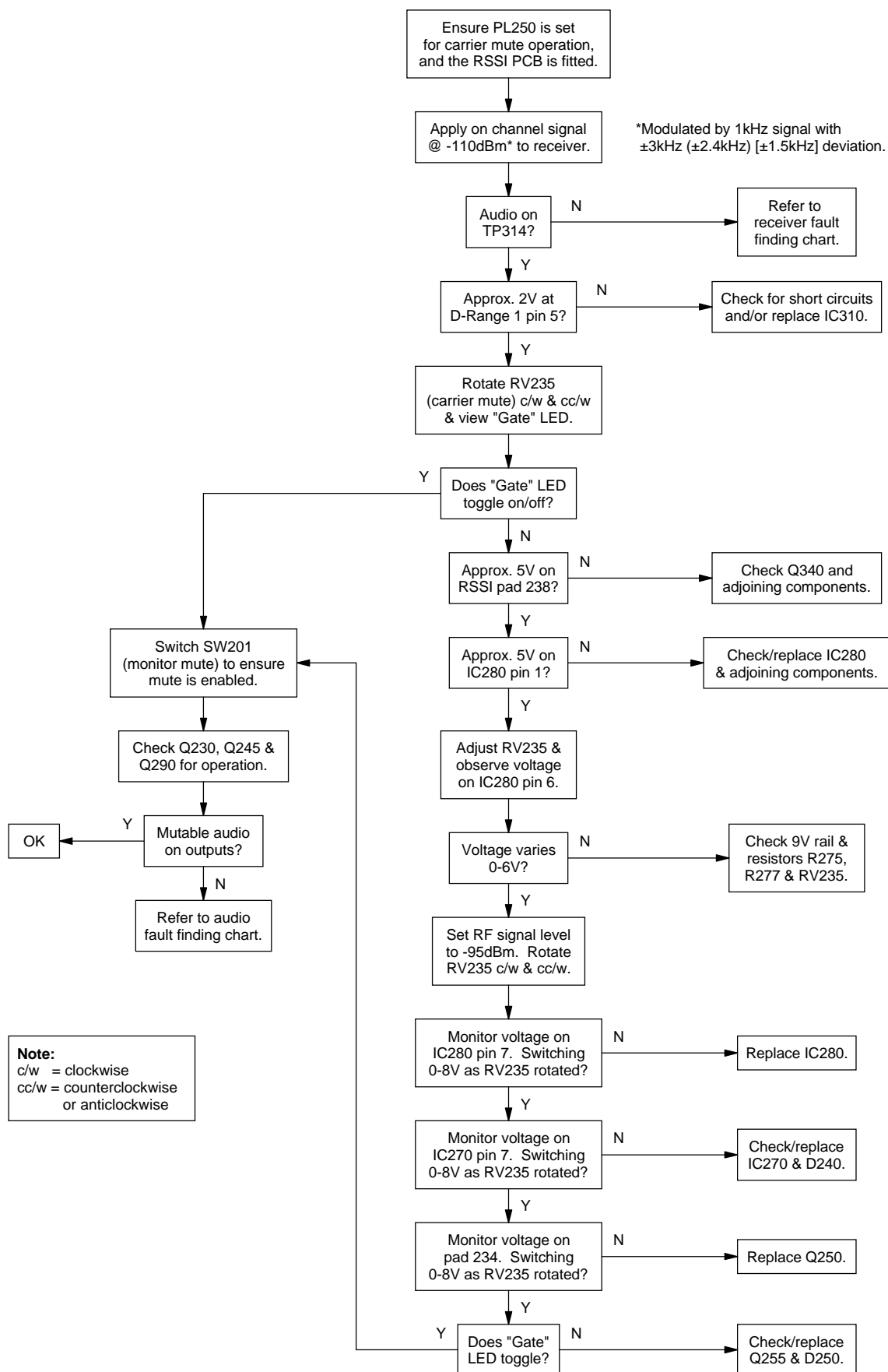




5.7.4 Noise Mute

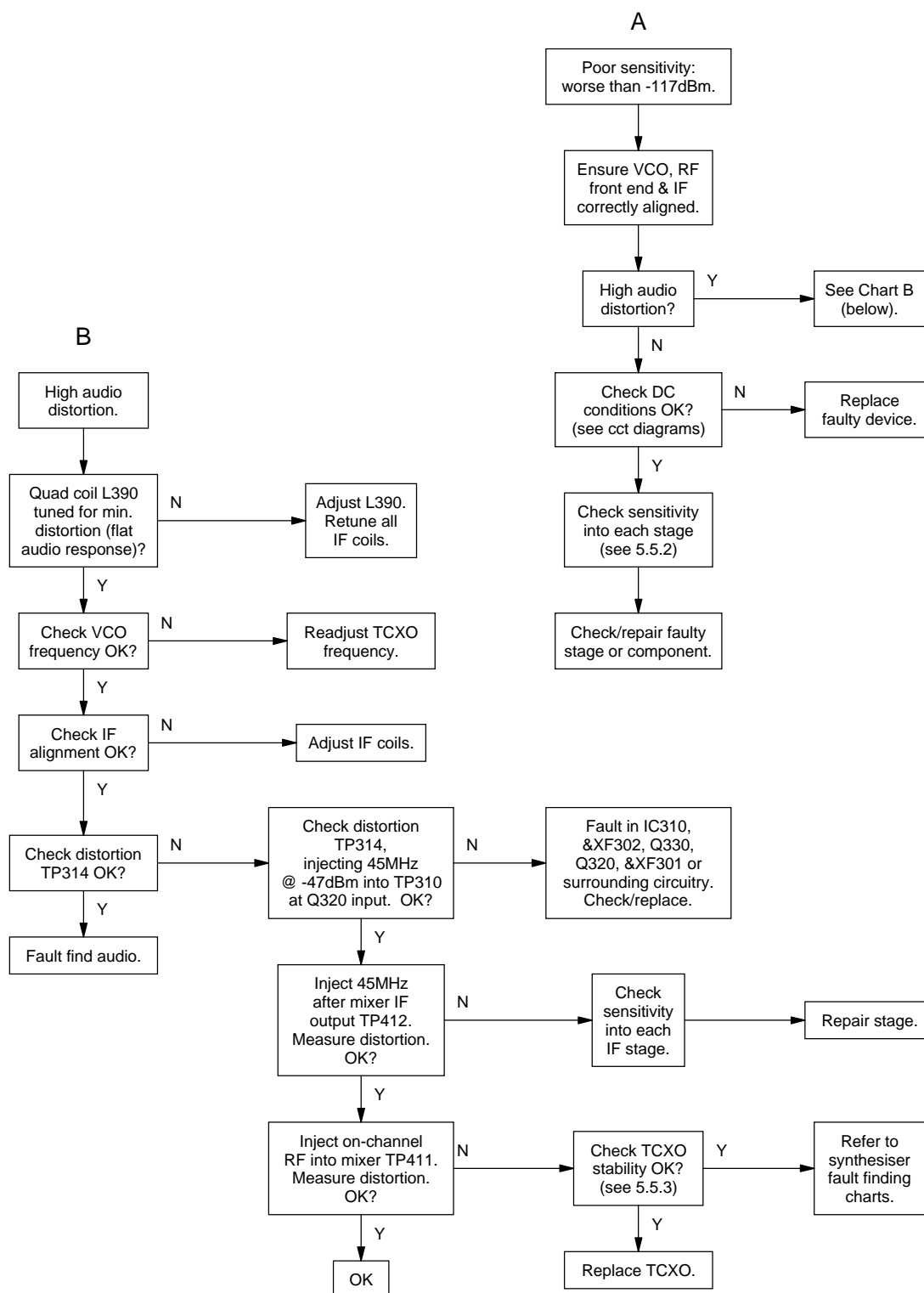


5.7.5 Carrier Mute

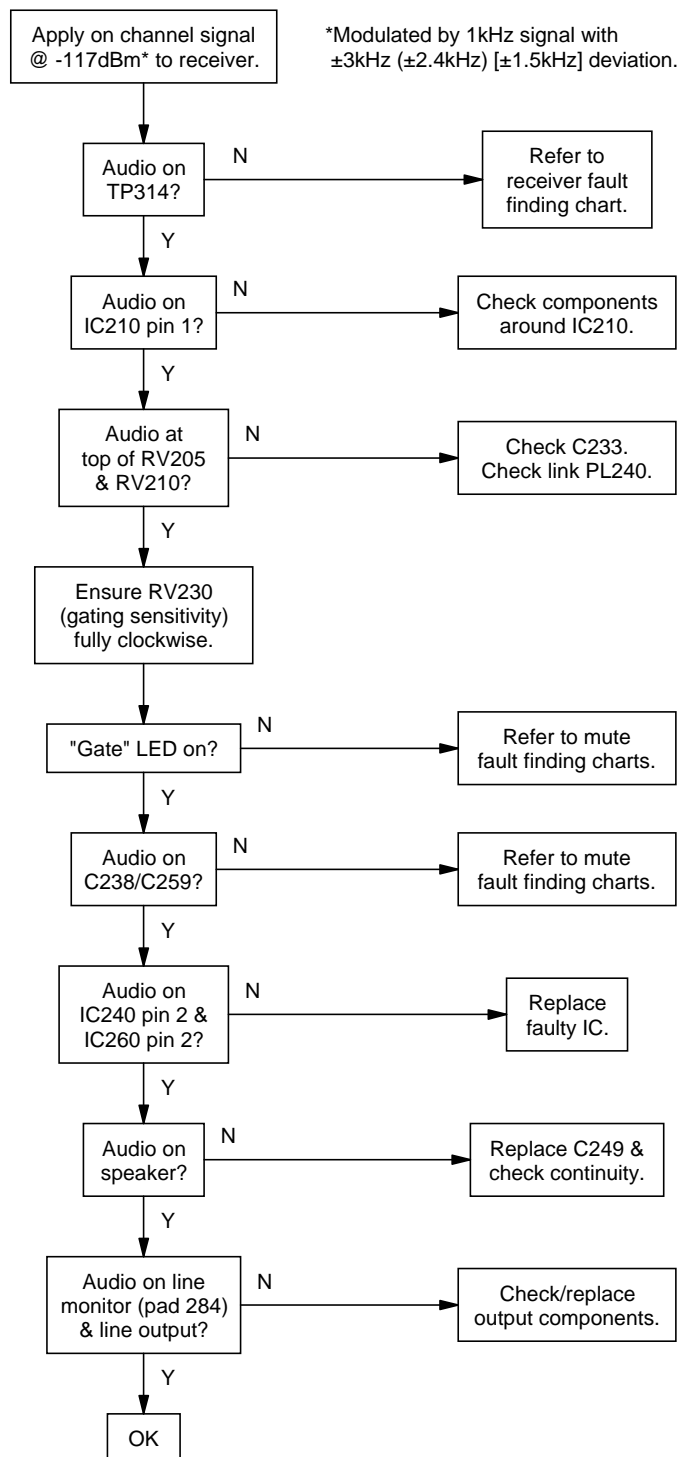


5.7.6 Receiver

Refer to the receiver IF and front end circuit diagrams (sheets 3 & 4) in Section 6.



5.7.7 Audio



6 T855 PCB Information



Caution: This equipment contains CMOS devices which are susceptible to damage from static charges. Refer to [Section 1.2](#) in Part A for more information on anti-static procedures when handling these devices.

This section provides the following information on the T855 receiver:

- parts lists
- grid reference indexes
- mechanical assembly drawings
- PCB layouts
- test points & options connections drawings
- circuit diagrams.

Section	Title	IPN	Page
6.1	Introduction		6.1.3
6.2	T800-04-0000 RSSI PCB	220-01138-00	6.2.1
6.3	T855 Receiver PCB	220-01396-02 220-01396-03	6.3.1 6.3.31

6.1 Introduction

Product Type Identification

You can identify the receiver type by checking the product code printed on a label on the rear of the chassis (product codes are explained in [Section 1.3](#) in this Part of the manual, and [Figure 1.1](#) in Part A shows typical labels). You can further verify the product type by checking the placement of an SMD resistor in the table that is screen printed onto the top side of the PCB, similar to the example drawn below. In this example, the resistor indicates that the product was built as a T855-10-XXXX.

<div><div><div>■ ■ 855-30</div><div>■ ■ 855-35</div><div>■ ■ 855-</div></div><div>PRODUCT TYPE</div></div>	PRODUCT TYPE			
	<div>■ ■</div>	855-10	<div>■ ■</div>	855-20
	<div>■ ■</div>	855-13	<div>■ ■</div>	855-23
	<div>■ ■</div>	855-15	<div>■ ■</div>	855-25

Note: The only function of this resistor is to indicate the product type. It has no effect on the circuitry or operation of the receiver.

PCB Identification

All PCBs are identified by a unique 10 digit “internal part number” (IPN), e.g. 220-01390-02, which is screen printed onto the PCB (usually on the top side), as shown in the example below:



The last 2 digits of this number define the issue status, which starts at 00 and increments through 01, 02, 03, etc. as the PCB is updated. Some issue PCBs never reach full production status and are therefore not included in this manual. A letter following the 10 digit IPN has no relevance in identifying the PCB for service purposes.

Note: It is important that you identify which issue PCB you are working on so that you can refer to the appropriate set of PCB information.

Parts Lists

The 10 digit numbers (000-00000-00) in this Parts List are “internal part numbers” (IPNs). We can process your spare parts orders more efficiently and accurately if you quote the IPN and provide a brief description of the part.

The components listed in this parts list are divided into two main types: those with a circuit reference (e.g. C2, D1, R121, etc.) and those without (miscellaneous and mechanical).

Those with a circuit reference are grouped in alphabetical order and then in numerical order within each group. Each component entry comprises three or four columns, as shown below:

circuit reference - lists components in alphanumeric order

Ref	Var	IPN	Description
C126		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C127		020-09220-01	CAP ELECT RADL 220M 16V 10X12.5MM
C128		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C129		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
&C130	10	015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
&C130	15	015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
&C130	20	015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
&C130	25	015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C131		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C132		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C133		015-05470-08	CAP CER 1206 CHIP 47N 10% X7R 50V

variant column - indicates that this is a variant component which is fitted only to the product type listed

description - gives a brief description of the component

Internal Part Number - order the component by this number

The miscellaneous and mechanical section lists the variant and common parts in IPN order.

Parts List Amendments

At the front of the parts list is the Parts List Amendments box (an example of which is shown below). This box contains a list of component changes which took place after the parts list and diagrams in this section were compiled. These changes (e.g. value changes, added/deleted components, etc.) are listed by circuit reference in alphanumeric order and supersede the information given in the parts list or diagrams. Components without circuit references are listed in IPN order. The number in brackets at the end of each entry refers to the Tait internal Change Order document.

IPN of new component

Change Order number

Parts List Amendments	
R306	Changed from 180Ω to 560Ω (036-13560-00) to increase sensitivity (71003).

circuit reference or IPN

description of change

Variant Components

A variant component is one that has the same circuit reference but different value or specification in different product types. Where two products share the same PCB, the term “variant” is also used to describe components unplaced in one product. Variant components have a character prefix, such as “&”, “=” or “#”, before the circuit reference (e.g. &R100).

The table below explains the variant prefixes used in T800 Series II products:

If the variant prefix is. . .	the component will. . .
&	change according to channel spacing
=	change according to frequency stability
#	change according to frequency range
%	change or be placed/unplaced for special applications
*	be unplaced in one product (where two products share the same PCB)

Grid Reference Index

This section contains a component grid reference index to help you find components and labelled pads on the PCB layouts and circuit diagrams. This index lists the components and pads in alphanumeric order, along with the appropriate alphanumeric grid references, as shown below:

The diagram illustrates the grid reference index table. It shows a table with three columns: Device, PCB, and Circuit. The table lists components in alphanumeric order. Labels with arrows point to specific parts of the table and its structure:

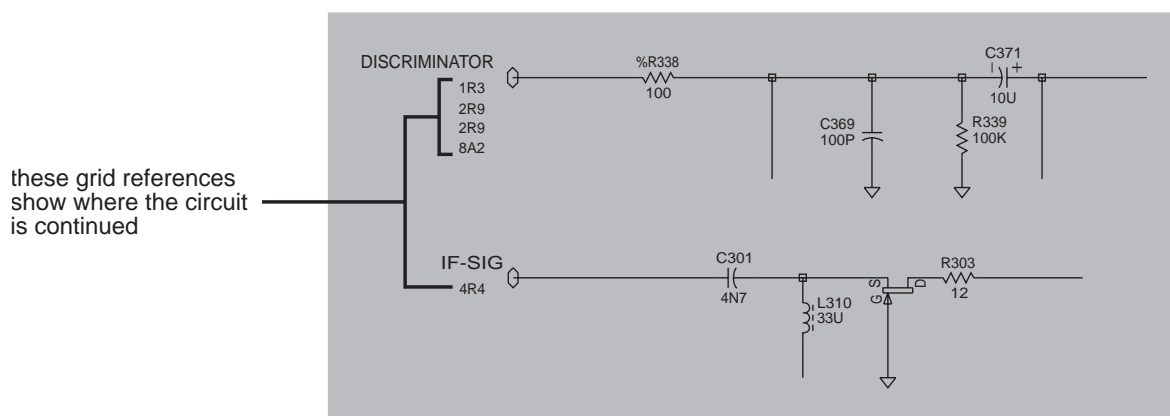
- components listed in alphanumeric order**: Points to the first column (Device).
- PCB layout reference**: Points to the second column (PCB).
- circuit diagram reference**: Points to the third column (Circuit).
- component location on the sheet**: Points to the sheet number (2) in the PCB reference (2:A6).
- sheet number**: Points to the sheet number (2) in the PCB reference (2:A6).
- component location on the layer**: Points to the layer number (A) in the PCB reference (2:A6).
- layer number - 1 = top side layer, 2 = bottom side layer**: Points to the layer number (2) in the PCB reference (2:A6).

Device	PCB	Circuit
C126	2:A6	2-R7
C127	1:A8	2-P4
C128	2:B7	2-P2
C129	2:C12	2-E3
&C130	2:D8	2-B8
C131	2:C9	2-H6
C132	2:D8	2-B8
C133	2:D6	2-E1

Using CAD Circuit Diagrams

Reading a CAD circuit diagram is similar to reading a road map, in that both have an alphanumeric border. The circuit diagrams in this manual use letters to represent the horizontal axis, and numbers for the vertical axis. These circuit diagram “grid references” are useful in following a circuit that is spread over two or more sheets.

When a line representing part of the circuitry is discontinued, a reference will be given at the end of the line to indicate where the rest of the circuitry is located, as shown below. The first digit refers to the sheet number and the last two characters refer to the location on that sheet of the continuation of the circuit (e.g. 1R3).



6.2 T800-04-0000 RSSI PCB

This section contains the following information.

IPN	Section	Page
220-01138-00	Parts List	6.2.3
	PCB Layout - Top Side	6.2.5
	PCB Layout - Bottom Side	6.2.6
	Circuit Diagram	6.2.7

T800-04-0000 Parts List (IPN 220-01138-00)

How To Use This Parts List

The components listed in this parts list are divided into two main types: those with a circuit reference (e.g. C2, D1, R121, etc.) and those without (miscellaneous and mechanical).

Those with a circuit reference are grouped in alphabetical order and then in numerical order within each group. Each component entry comprises three columns: the circuit reference, IPN and description. Static sensitive devices are indicated by an (S) at the start of the description column.

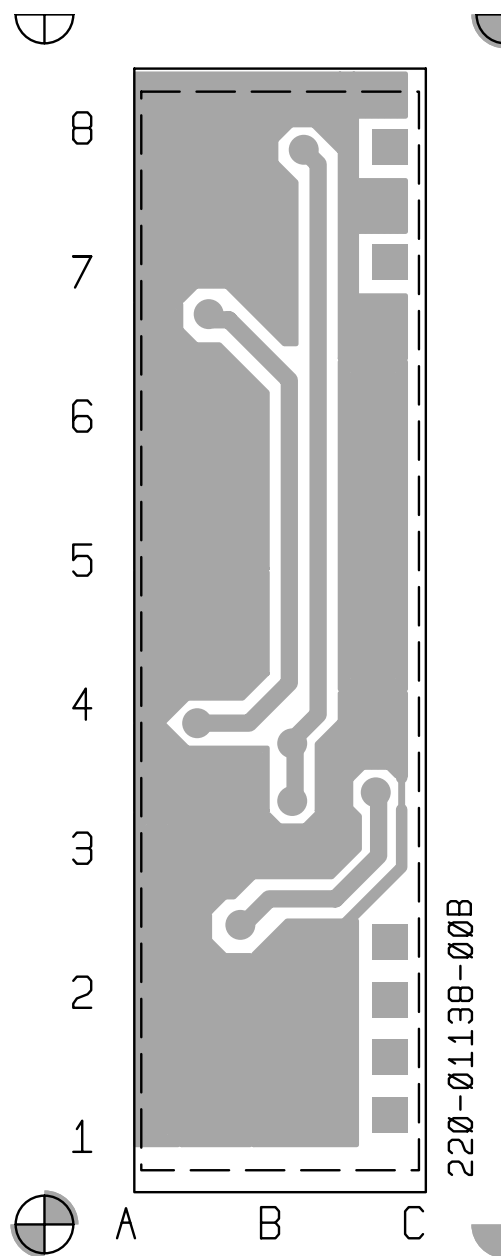
The miscellaneous and mechanical parts are listed in IPN order at the end of the parts list.

The Parts List Amendments box below lists component changes that took place after the parts list and diagrams in this section were compiled. These changes (e.g. value changes, added/deleted components, etc.) are listed by circuit reference in alphanumeric order and supersede the information given in the parts list or diagrams. Components without circuit references are listed in IPN order.

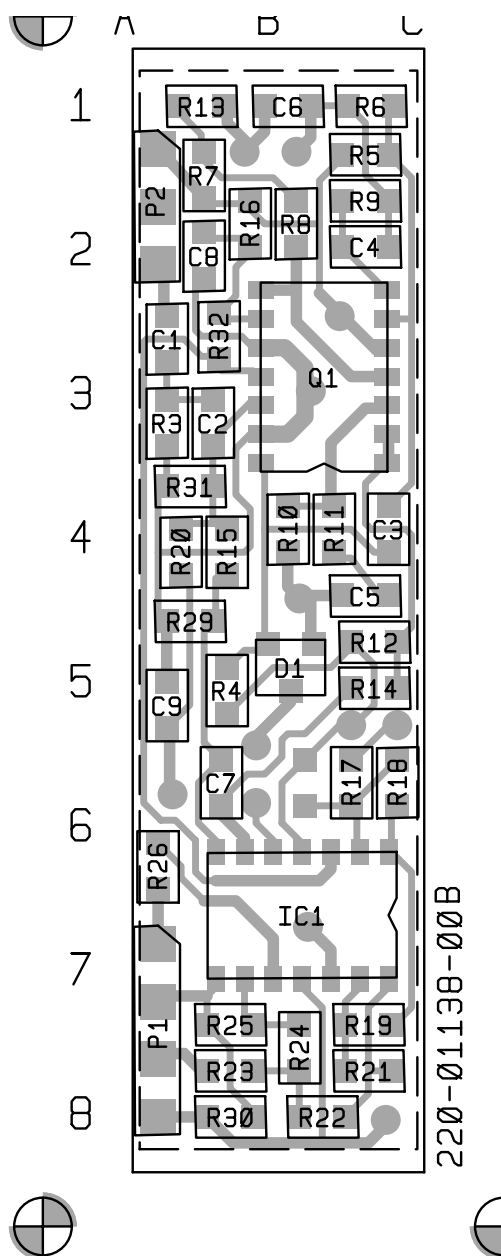
Parts List Amendments

PCB Issues 01, 02 & 03 The T800-04-0000 RSSI PCB has been updated from issue 00 to 01 (720371), 01 to 02 (740091) and from 02 to 03 (770177). However, these updates involved mechanical changes only - there were no electronic or component changes. You can therefore use this issue 00 PCB information for issue 01, 02 and 03 PCBs.

Ref	Var	IPN	Description	Ref	Var	IPN	Description
C1		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V				
C2		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V				
C3		015-23330-08	CAP CER 0805 CHIP 330P 10% X7R 50V				
C4		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V				
C5		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V				
C6		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V				
C7		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V				
C8		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V				
C9		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V				
D1		001-10000-99	(S) DIODE SMD BAV99 DUAL SWTCH SOT23				
IC1		002-10003-24	(S) IC SMD 324 QUAD OP AMP SO14				
Q1		002-10033-46	(S) IC SMD MC3346D XSTR ARRAY SO14				
R3		036-14100-00	RES M/F 0805 CHIP 1K 5%				
R4		036-14220-00	RES M/F 0805 CHIP 2K2 5%				
R5		036-15560-00	RES M/F 0805 CHIP 56K 5%				
R6		036-15390-00	RES M/F 0805 CHIP 39K 5%				
R7		036-15100-00	RES M/F 0805 CHIP 10K 5%				
R8		036-13680-00	RES M/F 0805 CHIP 680E 5%				
R9		036-14820-00	RES M/F 0805 CHIP 8K2 5%				
R10		036-16220-00	RES M/F 0805 CHIP 220K 5%				
R11		036-13470-00	RES M/F 0805 CHIP 470E 5%				
R12		036-16330-00	RES M/F 0805 CHIP 330K 5%				
R13		036-16100-00	RES M/F 0805 CHIP 100K 5%				
R14		036-16180-00	RES M/F 0805 CHIP 180K 5%				
R15		036-15220-00	RES M/F 0805 CHIP 22K 5%				
R16		036-17100-00	RES M/F 0805 CHIP 1M 5%				
R17		036-15330-00	RES M/F 0805 CHIP 33K 5%				
R18		036-14100-00	RES M/F 0805 CHIP 1K 5%				
R19		036-15100-00	RES M/F 0805 CHIP 10K 5%				
R20		036-15100-00	RES M/F 0805 CHIP 10K 5%				
R21		036-16330-00	RES M/F 0805 CHIP 330K 5%				
R22		036-14470-00	RES M/F 0805 CHIP 4K7 5%				
R23		036-15100-00	RES M/F 0805 CHIP 10K 5%				
R24		036-16150-00	RES M/F 0805 CHIP 150K 5%				
R25		036-16180-00	RES M/F 0805 CHIP 180K 5%				
R26		036-15820-00	RES M/F 0805 CHIP 82K 5%				
R29		036-14470-00	RES M/F 0805 CHIP 4K7 5%				
R30		036-15100-00	RES M/F 0805 CHIP 10K 5%				
R31		036-15220-00	RES M/F 0805 CHIP 22K 5%				
R32		036-14470-00	RES M/F 0805 CHIP 4K7 5%				
		220-01138-00	PCB T700 RSSI				
		356-00010-52	PIN EDGE MTG 0.8MM PCB WAKO				



T800-04-0000 PCB (IPN 220-01138-00) - Top Side



T800-04-0000 PCB (IPN 220-01138-00) - Bottom Side

6.3 T855 Receiver PCB

This section contains the following information.

IPN	Section	Page
220-01396-02	Parts List	6.3.3
	Mechanical & Miscellaneous Parts	6.3.10
	Mechanical Assembly	6.3.11
	Grid Reference Index	6.3.13
	PCB Layout - Top Side	6.3.17
	PCB Layout - Bottom Side	6.3.18
	Test Points & Options Connections - Top Side	6.3.19
	Test Points & Options Connections - Bottom Side	6.3.20
	Receiver Overview Diagram	6.3.21
	Audio Processor Circuit Diagram	6.3.22
	IF Section Circuit Diagram	6.3.23
	Front End Circuit Diagram	6.3.24
	VCO Section Circuit Diagram	6.3.25
	Regulators Circuit Diagram	6.3.26
	Synthesiser Circuit Diagram	6.3.27
	Microcontroller Circuit Diagram	6.3.28
	Harmonic Filter Circuit Diagram	6.3.29
220-01396-03	Parts List	6.3.31
	Mechanical & Miscellaneous Parts	6.3.38
	Mechanical Assembly	6.3.39
	Grid Reference Index	6.3.41
	PCB Layout - Top Side	6.3.45
	PCB Layout - Bottom Side	6.3.46
	Test Points & Options Connections - Top Side	6.3.47
	Test Points & Options Connections - Bottom Side	6.3.48
	Receiver Overview Diagram	6.3.49
	Audio Processor Circuit Diagram	6.3.50
	IF Section Circuit Diagram	6.3.51
	Front End Circuit Diagram	6.3.52
	VCO Section Circuit Diagram	6.3.53
	Regulators Circuit Diagram	6.3.54
	Synthesiser Circuit Diagram	6.3.55
	Microcontroller Circuit Diagram	6.3.56
	Harmonic Filter Circuit Diagram	6.3.57

T855 Parts List (IPN 220-01396-02)

How To Use This Parts List

The components listed in this parts list are divided into two main types: those with a circuit reference (e.g. C2, D1, R121, etc.) and those without (miscellaneous and mechanical).

Those with a circuit reference are grouped in alphabetical order and then in numerical order within each group. Each component entry comprises three or four columns: the circuit reference, variant (if applicable), IPN and description. A number in the variant column indicates that this is a variant component which is fitted only to the product type listed. Static sensitive devices are indicated by an (S) at the start of the description column.

The miscellaneous and mechanical section lists the variant and common parts in IPN order. Where possible, a number in the legend column indicates their position in the mechanical assembly drawing.

The Parts List Amendments box below lists component changes that took place after the parts list and diagrams in this section were compiled. These changes (e.g. value changes, added/deleted components, etc.) are listed by circuit reference in alphanumeric order and supersede the information given in the parts list or diagrams. Components without circuit references are listed in IPN order.

Parts List Amendments

C302	Changed from 120pF (IPN 015-23120-01) to 100pF (IPN 015-23100-01)	} to improve the input match to the post-mixer buffer (Q310) (710264).
C304	Deleted	
C711, C712	Changed from 100pF (IPN 015-23100-01) to 22pF (IPN 015-22220-01)	} to reduce residual FM (710311).
C776	Changed from 4n7 (IPN 015-24470-08) to 6n8 (IPN 015-24680-08)	
Additional Capacitor	4p7 chip capacitor (IPN 015-21470-01 - no circuit reference) added in parallel with L380 (on top of R328) to improve the input match to the post-mixer buffer (Q310) (710264).	
IC710	Changed from 74HCV04 (IPN 002-74910-04) to 74HC04 (IPN 002-74900-04) to reduce quiescent current (710311).	
L380	Changed from Tait coil #621 (IPN 050-00016-21) to #622 (IPN 050-00016-22) to improve the input match to the post-mixer buffer (Q310) (710264).	
R510	Changed from 1k5 (IPN 036-14150-00) to 2k2 (IPN 036-14220-00)	} to reduce residual FM (710311).
R707	Changed from 100k (IPN 036-16100-00) to 47k (IPN 036-15470-00)	
R775	Changed from 22k (IPN 036-15220-00) to 18k (IPN 036-15180-00)	
303-11169-03	T800 chassis: replaced by 303-11169-04	} New chassis and lid tooling introduced, incorporating mechanical improvements and better RF shielding (750027, 750028 & 750029). Note that the new lids should be used only with the new chassis.
312-01052-01	T800 top lid: replaced by 312-01052-02	
312-01053-01	T800 bottom lid: replaced by 312-01053-02	

Ref	Var	IPN	Description	Ref	Var	IPN	Description
C201		020-08100-04	CAP ELE RA 10M 16V 4X7MM	&C324	30	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V
&C203	10	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C324	35	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V
&C203	13	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C326	10	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C203	15	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C326	13	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C203	20	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C326	15	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C203	23	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C326	20	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C203	25	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C326	23	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C203	30	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C326	25	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C203	35	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C326	30	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C205	10	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C326	35	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C205	13	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	C328		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
&C205	15	015-25100-08	CAP CER 0805 10N 10% X7R 50V	C330		015-24100-08	CAP CER 0805 1N 10% X7R 50V
&C205	20	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	C332		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
&C205	23	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C334	10	015-22470-01	CAP CER 0805 47P 5% NPO 50V
&C205	25	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C334	13	015-22470-01	CAP CER 0805 47P 5% NPO 50V
&C205	30	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C334	15	015-22470-01	CAP CER 0805 47P 5% NPO 50V
&C205	35	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C334	20	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C207		020-07100-02	CAP ELE RA 1M 50V 5X11MM	&C334	23	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C209		020-08470-02	CAP ELE RA 47M 16V 6X11MM	&C334	25	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C210		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C334	30	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C211		015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C334	35	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C213		015-25470-08	CAP CER 0805 47N 10% X7R 50V	&C336	10	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C215		015-21220-01	CAP CER 0805 2P2+-1/4P NPO 50V	&C336	13	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C217		015-22470-01	CAP CER 0805 47P 5% NPO 50V	&C336	15	015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V
C219		015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C336	20	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C221		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C336	23	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C222		020-08100-04	CAP ELE RA 10M 16V 4X7MM	&C336	25	015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V
C223		015-06100-08	CAP CER 1206 100N 10% X7R 50V	&C336	30	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C225		015-06100-08	CAP CER 1206 100N 10% X7R 50V	&C336	35	015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V
C227		015-23100-01	CAP CER 0805 100P 5% NPO 50V	&C338	10	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C229		020-08100-04	CAP ELE RA 10M 16V 4X7MM	&C338	13	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C231		020-08100-04	CAP ELE RA 10M 16V 4X7MM	&C338	15	015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V
C233		020-08100-04	CAP ELE RA 10M 16V 4X7MM	&C338	20	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C235		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C338	23	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C237		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C338	25	015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V
C238		015-06100-08	CAP CER 1206 100N 10% X7R 50V	&C338	30	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C239		020-09100-03	CAP ELE RA 100M 16V 8X11MM	&C338	35	015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V
C240A		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C340	10	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C240B		015-06100-08	CAP CER 1206 100N 10% X7R 50V	&C340	13	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C240C		020-09220-01	CAP ELE RA 220M 16V 10X12.5MM	&C340	15	015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C249		020-09470-05	CAP ELE RAD 470M 16V 10X12.5MM	&C340	20	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C251		015-06100-08	CAP CER 1206 100N 10% X7R 50V	&C340	23	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C253		020-09100-03	CAP ELE RA 100M 16V 8X11MM	&C340	25	015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C255		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C340	30	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C257		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C340	35	015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C259		015-06100-08	CAP CER 1206 100N 10% X7R 50V	C342		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C260A		015-24100-08	CAP CER 0805 1N 10% X7R 50V	C344		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C260B		015-06100-08	CAP CER 1206 100N 10% X7R 50V	C346		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C260C		020-09220-01	CAP ELE RA 220M 16V 10X12.5MM	C348		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C261		020-09100-03	CAP ELE RA 100M 16V 8X11MM	C350		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C262		020-09100-03	CAP ELE RA 100M 16V 8X11MM	C351		015-21100-01	CAP CER 0805 1P0+-1/4P NPO 50V
C264		015-06100-08	CAP CER 1206 100N 10% X7R 50V	C352		015-22150-01	CAP CER 0805 15P 5% NPO 50V
C266		020-07470-91	CAP ELE RA 4M7 63V 6X11MM BI-P	C353		015-24100-08	CAP CER 0805 1N 10% X7R 50V
C268		020-07470-91	CAP ELE RA 4M7 63V 6X11MM BI-P	C354		025-08100-02	CAP TANT BEAD 10M 10% 16V
C270		015-06100-08	CAP CER 1206 100N 10% X7R 50V	C356		015-22150-01	CAP CER 0805 15P 5% NPO 50V
C272		015-25100-08	CAP CER 0805 10N 10% X7R 50V	C357		015-05470-08	CAP CER 1206 47N 10% X7R 50V
C274		015-06100-08	CAP CER 1206 100N 10% X7R 50V	C358		015-05470-08	CAP CER 1206 47N 10% X7R 50V
C276		015-25470-08	CAP CER 0805 47N 10% X7R 50V	C360		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C278		015-06100-08	CAP CER 1206 100N 10% X7R 50V	C362		015-25100-08	CAP CER 0805 10N 10% X7R 50V
C280		015-25470-08	CAP CER 0805 47N 10% X7R 50V	C364		015-22390-01	CAP CER 0805 39P 5% NPO 50V
C286		015-24470-08	CAP CER 0805 4N7 10% X7R 50V	C366		015-22390-01	CAP CER 0805 39P 5% NPO 50V
C302		015-23100-01	CAP CER 0805 100P 5% NPO 50V	C368		015-05470-08	CAP CER 1206 47N 10% X7R 50V
C306		015-24470-08	CAP CER 0805 4N7 10% X7R 50V	C370		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C308		015-24100-08	CAP CER 0805 1N 10% X7R 50V	C372		015-05470-08	CAP CER 1206 47N 10% X7R 50V
C310		015-25100-08	CAP CER 0805 10N 10% X7R 50V	C374		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C312		020-58100-03	CAP ELE AI RDL 10M 50V 5X11MM	C376		015-23120-01	CAP CER 0805 120P 5% NPO 50V
C314		015-24470-08	CAP CER 0805 4N7 10% X7R 50V	C378		015-23120-01	CAP CER 0805 120P 5% NPO 50V
C316		015-22150-01	CAP CER 0805 15P 5% NPO 50V	C380		015-25100-08	CAP CER 0805 10N 10% X7R 50V
&C318	10	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C382		020-58100-03	CAP ELE AI RDL 10M 50V 5X11MM
&C318	13	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C384		015-05470-08	CAP CER 1206 47N 10% X7R 50V
&C318	15	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C386		015-05470-08	CAP CER 1206 47N 10% X7R 50V
&C318	20	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C388		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
&C318	23	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C390		025-08100-02	CAP TANT BEAD 10M 10% 16V
&C318	25	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C392		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
&C318	30	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C394		015-05470-08	CAP CER 1206 47N 10% X7R 50V
&C318	35	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C410		015-21180-01	CAP CER 0805 1P8+-1/4P NPO 50V
&C320	10	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C420		015-22470-01	CAP CER 0805 47P 5% NPO 50V
&C320	13	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C430		015-23100-01	CAP CER 0805 100P 5% NPO 50V
&C320	15	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C440		020-58100-03	CAP ELE AI RDL 10M 50V 5X11MM
&C320	20	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C450		015-22470-01	CAP CER 0805 47P 5% NPO 50V
&C320	23	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C470		015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V
&C320	25	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C480		015-22560-01	CAP CER 0805 56P 5% NPO 50V
&C320	30	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C505		015-26100-08	CAP CER 0805 100N 10% X7R 50V
&C320	35	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C515		015-06100-08	CAP CER 1206 100N 10% X7R 50V
&C322	10	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C530		014-08100-00	CAP TANT CHIP 10M 16VW +-20%
&C322	13	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C535		015-06100-08	CAP CER 1206 100N 10% X7R 50V
&C322	15	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C610A		015-25100-08	CAP CER 0805 10N 10% X7R 50V
&C322	20	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C610B		020-09100-04	CAP ELE RA 100M 10V 6.3X9MM
&C322	23	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C611A		020-09100-04	CAP ELE RA 100M 10V 6.3X9MM
&C322	25	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C611B		015-25100-08	CAP CER 0805 10N 10% X7R 50V
&C322	30	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C623		015-23120-01	CAP CER 0805 120P 5% NPO 50V
&C322	35	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C625		020-09470-07	CAPEL470M16V20%V 8*20 3.5L.ESR
&C324	10	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C626		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
&C324	13	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C628		015-24100-08	CAP CER 0805 1N 10% X7R 50V
&C324	15	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C630		015-06100-08	CAP CER 1206 100N 10% X7R 50V
&C324	20	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C631A		015-06100-08	CAP CER 1206 100N 10% X7R 50V
&C324	23	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C631B		025-08100-02	CAP TANT BEAD 10M 10% 16V
&C324	25	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C637		015-23120-01	CAP CER 0805 120P 5% NPO 50V

Ref	Var	IPN	Description	Ref	Var	IPN	Description
C640		015-24100-08	CAP CER 0805 1N 10% X7R 50V	D290		001-00011-70	S) DIODE 1N4001 1A/50V
C651		015-06100-08	CAP CER 1206 100N 10% X7R 50V	D295		001-00011-70	S) DIODE 1N4001 1A/50V
C658		015-06100-08	CAP CER 1206 100N 10% X7R 50V	D310		001-10000-56	S) DIODE SMD BAW56 D-SW SOT23
C660		015-06100-08	CAP CER 1206 100N 10% X7R 50V	D610		001-10000-99	S) DIODE SMD BAV99 D-SW SOT23
C665		020-58100-03	CAP ELE AI RDL 10M 50V 5X11MM	D640		001-10000-70	S) DIODE SMD BAV70 D-SW SOT23
C670		025-07330-01	CAP TANT BEAD 3M3 35V	D730		001-10065-00	DIODE BAT65 SCHOTTKEY SOD123
C673		015-24470-08	CAP CER 0805 4N7 10% X7R 50V	D740		001-10065-00	DIODE BAT65 SCHOTTKEY SOD123
C677		020-07100-02	CAP ELE RA 1M 50V 5X11MM	D820		001-10065-00	DIODE BAT65 SCHOTTKEY SOD123
C681		015-06100-08	CAP CER 1206 100N 10% X7R 50V	D860		001-10000-70	S) DIODE SMD BAV70 D-SW SOT23
C684		025-08100-02	CAP TANT BEAD 10M 10% 16V	D880		001-10000-70	S) DIODE SMD BAV70 D-SW SOT23
C687		015-24100-08	CAP CER 0805 1N 10% X7R 50V				
C690		015-06100-08	CAP CER 1206 100N 10% X7R 50V	#FL410	10	051-00576-00	COIL HELIC 400-440MHz T855SII
C693		025-08100-02	CAP TANT BEAD 10M 10% 16V	#FL410	13	051-00576-00	COIL HELIC 400-440MHz T855SII
C700		015-06100-08	CAP CER 1206 100N 10% X7R 50V	#FL410	15	051-00576-00	COIL HELIC 400-440MHz T855SII
C702		015-24100-08	CAP CER 0805 1N 10% X7R 50V	#FL410	20	051-00577-00	COIL HELIC 440-480MHz T855SII
C703		015-24100-08	CAP CER 0805 1N 10% X7R 50V	#FL410	23	051-00577-00	COIL HELIC 440-480MHz T855SII
C705		015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	#FL410	25	051-00577-00	COIL HELIC 440-480MHz T855SII
C707		015-22470-01	CAP CER 0805 47P 5% NPO 50V	#FL410	30	051-00578-00	COIL HELIC 480-530MHz T855SII
C708		015-22470-01	CAP CER 0805 47P 5% NPO 50V	#FL410	35	051-00578-00	COIL HELIC 480-530MHz T855SII
C709		015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V	#FL420	10	051-00576-00	COIL HELIC 400-440MHz T855SII
C710A		014-07470-00	CAP TANT CHIP 4U7 3.5 X 2.8MM	#FL420	13	051-00576-00	COIL HELIC 400-440MHz T855SII
C710B		015-06100-08	CAP CER 1206 100N 10% X7R 50V	#FL420	15	051-00576-00	COIL HELIC 400-440MHz T855SII
C710C		015-25100-08	CAP CER 0805 10N 10% X7R 50V	#FL420	20	051-00577-00	COIL HELIC 440-480MHz T855SII
C711		015-22220-01	CAP CER 0805 22P 5% NPO 50V	#FL420	23	051-00577-00	COIL HELIC 440-480MHz T855SII
C712		015-22220-01	CAP CER 0805 22P 5% NPO 50V	#FL420	25	051-00577-00	COIL HELIC 440-480MHz T855SII
C713		015-25100-08	CAP CER 0805 10N 10% X7R 50V	#FL420	30	051-00578-00	COIL HELIC 480-530MHz T855SII
C735		015-22470-01	CAP CER 0805 47P 5% NPO 50V	#FL420	35	051-00578-00	COIL HELIC 480-530MHz T855SII
C736		015-22470-01	CAP CER 0805 47P 5% NPO 50V				
C740A		015-24100-08	CAP CER 0805 1N 10% X7R 50V	IC210		002-00012-40	S) IC 358 DUAL O-AMP
C740B		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC240		002-00014-05	S) IC TDA7231 1.6W AF PWR
C741A		014-07470-00	CAP TANT CHIP 4U7 3.5 X 2.8MM	IC260		002-00014-05	S) IC TDA7231 1.6W AF PWR
C741B		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC270		002-00012-40	S) IC 358 DUAL O-AMP
C742A		015-06100-08	CAP CER 1206 100N 10% X7R 50V	IC280		002-00012-40	S) IC 358 DUAL O-AMP
C742B		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC310		002-00014-73	S) IC MC3361CP IF AMP
C743		015-22470-01	CAP CER 0805 47P 5% NPO 50V	IC320		002-00014-58	S) IC 78L05 5V 100MA REG TO92
C745		015-23120-01	CAP CER 0805 120P 5% NPO 50V	IC410		002-00022-01	S) MIXER DOUBLE BLNCD 2-750MHZ
C750		025-08100-03	CAP 10M 35V 20% TANT 5MM L/S	IC610		002-00014-58	S) IC 78L05 5V 100MA REG TO92
C757		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC630		002-00014-62	S) IC 317L 100MA REG 3TER TO92
C759		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC640		002-10003-58	S) IC SMD LM358 DUAL O-AMP
C761		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC650		002-10012-32	SMD DS1232LPS-2 LP RESET&W-DOG
C762		014-08220-01	(LJ)CAP TANT 22UF10V276MSER	-IC700		539-00010-50	TCXO 12.8MHZ +-1PPM -20 +70C
C764		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC710		002-74900-04	S) IC SMD 74HC04D 6X INV BUFFD
C765		014-07470-00	CAP TANT CHIP 4U7 3.5 X 2.8MM	IC740		002-14519-10	S) IC MC145191F SMD SYNTH
C767		015-24100-08	CAP CER 0805 1N 10% X7R 50V	IC750		002-10330-78	S) IC MC33078D 2X AMP LO NOISE
C769		015-24100-08	CAP CER 0805 1N 10% X7R 50V	IC810		002-08951-20	S) IC AT89C51 PLCC44 MIC 12MHZ
C770		014-08220-01	(LJ)CAP TANT 22UF10V276MSER	IC820		002-12416-00	SMD AT24C16N-10SC EEPROM
C772		014-08220-01	(LJ)CAP TANT 22UF10V276MSER	IC830		002-10003-24	S) IC SMD 324 4X O-AMP SO14
C774		022-06100-16	CAP METAL POLY 100N +-10% 100V	IC840		002-10040-53	S)MC14053B SMD BREAK B4 MAKE
C776		015-24680-08	CAP CER 0805 6N8 10% X7R 50V	IC850		002-10003-24	S) IC SMD 324 4X O-AMP SO14
C782		015-23120-01	CAP CER 0805 120P 5% NPO 50V				
C784		015-23120-01	CAP CER 0805 120P 5% NPO 50V	L230		056-00021-02	IND FXD 100UH AX
C786		015-06100-08	CAP CER 1206 100N 10% X7R 50V	L310		050-00016-22	COIL TAIT NO 622 20-120M
C788		015-23120-01	CAP CER 0805 120P 5% NPO 50V	L320		050-00016-22	COIL TAIT NO 622 20-120M
C791		015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	L330		050-00016-22	COIL TAIT NO 622 20-120M
C792		015-23120-01	CAP CER 0805 120P 5% NPO 50V	L340		050-00016-22	COIL TAIT NO 622 20-120M
C810		015-25100-08	CAP CER 0805 10N 10% X7R 50V	L350		050-00016-22	COIL TAIT NO 622 20-120M
C812		015-23100-01	CAP CER 0805 100P 5% NPO 50V	L360		050-00016-22	COIL TAIT NO 622 20-120M
C813		015-24100-08	CAP CER 0805 1N 10% X7R 50V	L370		050-00016-22	COIL TAIT NO 622 20-120M
C814		015-24100-08	CAP CER 0805 1N 10% X7R 50V	L380		050-00016-22	COIL TAIT NO 622 20-120M
C815		015-05100-07	CAP 1206 CHIP NPO 10nF 25V	L385		050-00016-22	COIL TAIT NO 622 20-120M
C816		015-25100-08	CAP CER 0805 10N 10% X7R 50V	L390		050-00016-31	COIL TAIT NO 631 455KHZ
C818		015-25100-08	CAP CER 0805 10N 10% X7R 50V	L420		056-00021-04	IND FXD 330NH AX
C819		015-22330-01	CAP CER 0805 33P 5% NPO 50V	L440		056-00021-04	IND FXD 330NH AX
C820		015-23220-01	CAP CER 0805 220P 5% NPO 50V	L740		052-08125-15	COIL A/W 1.5T/2.5MM HOR 0.8MM
C822		015-25220-08	CAP CER 0805 22N 10% X7R 50V	L910		052-08125-25	COIL A/W 2.5T/2.5MM HOR 0.8MM
C824		015-25470-08	CAP CER 0805 47N 10% X7R 50V	L920		052-08140-15	COIL A/W 1.5T/4.0MM HOR 0.8MM
C826		015-05100-07	CAP 1206 CHIP NPO 10nF 25V	L930		052-08140-15	COIL A/W 1.5T/4.0MM HOR 0.8MM
C828		015-05100-07	CAP 1206 CHIP NPO 10nF 25V	L940		052-08125-25	COIL A/W 2.5T/2.5MM HOR 0.8MM
C830		015-25470-08	CAP CER 0805 47N 10% X7R 50V				
C832		016-07100-01	CAP EL 6X4 1M 20% 50V	PL210		240-00020-59	HEADER 3 W 1 R PCB MTG
C833		015-25220-08	CAP CER 0805 22N 10% X7R 50V	PL220		240-00020-59	HEADER 3 W 1 R PCB MTG
C834		015-25100-08	CAP CER 0805 10N 10% X7R 50V	PL230		240-00020-63	HEADER 4 W X1R PCB MTG
C836		015-05100-07	CAP 1206 CHIP NPO 10nF 25V	PL240		240-00020-58	HEADER 5 WX1 R PCB MTG
C837		015-05100-07	CAP 1206 CHIP NPO 10nF 25V	PL250		240-00020-59	HEADER 3 W 1 R PCB MTG
C838		015-05100-07	CAP 1206 CHIP NPO 10nF 25V	PL260		240-00020-59	HEADER 3 W 1 R PCB MTG
C840		015-25470-08	CAP CER 0805 47N 10% X7R 50V	PL270		240-00020-59	HEADER 3 W 1 R PCB MTG
C842		016-07100-01	CAP EL 6X4 1M 20% 50V				
C844		016-07100-01	CAP EL 6X4 1M 20% 50V	Q210		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS
C846		016-07100-01	CAP EL 6X4 1M 20% 50V	Q220		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS
C848		016-07100-01	CAP EL 6X4 1M 20% 50V	Q230		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS
C850		015-25470-08	CAP CER 0805 47N 10% X7R 50V	Q240		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS
C873		015-25220-08	CAP CER 0805 22N 10% X7R 50V	Q245		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS
C876		020-09100-04	CAP ELE RA 100M 10V 6.3X9MM	Q250		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS
C879		020-08100-04	CAP ELE RA 10M 16V 4X7MM	Q255		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS
C910		015-21330-01	CAP CER 0805 3P3+-1/4P NPO 50V	Q260		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS
C920		015-21680-01	CAP CER 0805 6P8+-1/4P NPO 50V	Q270		000-10008-17	S) XSTR SMD BC817-25 NPN SOT23
C930		015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	Q280		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS
C940		015-21680-01	CAP CER 0805 6P8+-1/4P NPO 50V	Q290		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS
C950		015-21330-01	CAP CER 0805 3P3+-1/4P NPO 50V	Q310		000-50020-18	S) XSTR AI BF247A JFETTO92 VHF
				Q320		000-10008-92	S) XSTR SMD BFS17 NPN SOT23
D111		001-00011-60	S) DIODE SR2607 -- USE MR750	Q330		000-10009-91	S) XSTR SMD BF991 DG MFET
D220		001-10000-56	S) DIODE SMD BAW56 D-SW SOT23	Q340		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS
D230		001-10000-70	S) DIODE SMD BAV70 D-SW SOT23	Q350		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS
D240		001-10000-99	S) DIODE SMD BAV99 D-SW SOT23	Q360		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS
D260		001-10084-33	S) DIODE ZEN SMD 0.3W 3V3SOT23	Q410		000-10057-10	S) XSTR SMD BR571 NPN SOT23
D270		001-10000-70	S) DIODE SMD BAV70 D-SW SOT23	Q540		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS
D285		001-00011-70	S) DIODE 1N4001 1A/50V	Q620		000-00012-15	S) XSTR BD234 PNP AF PWR TO126
D289		001-00011-70	S) DIODE 1N4001 1A/50V	Q630		000-50011-30	S) XSTR AI BC557B PNP TO92 AF

Ref	Var	IPN	Description	Ref	Var	IPN	Description
Q660		000-10008-17	S) XSTR SMD BC817-25 NPN SOT23	R285		036-15470-00	RES M/F 0805 47K 5%
Q670		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R287		036-15100-00	RES M/F 0805 10K 5%
Q750		000-10008-07	S) XSTR SMD BC807 PNP SOT23 AF	R288		036-14470-00	RES M/F 0805 4K7 5%
Q760		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R289		036-14680-00	RES M/F 0805 6K8 5%
Q770		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R290		036-14100-00	RES M/F 0805 1K 5%
Q775		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R292		036-14680-00	RES M/F 0805 6K8 5%
Q780		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R293		036-13560-00	RES M/F 0805 560E 5%
Q785		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R294		036-14100-00	RES M/F 0805 1K 5%
Q790		000-10003-12	S) XSTR SMD BFR31 N JFET SOT23	R295		036-14680-00	RES M/F 0805 6K8 5%
Q795		000-10057-10	S) XSTR SMD BR571 NPN SOT23	R296		036-14120-00	RES M/F 0805 1K2 5%
Q810		000-10008-17	S) XSTR SMD BC817-25 NPN SOT23	R297		030-52100-20	RES FILM AI 10E 5% 0.4W 4X1.6
Q820		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R298		036-15470-00	RES M/F 0805 47K 5%
Q840		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R299		036-15470-00	RES M/F 0805 47K 5%
Q850		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R302		036-12390-00	RES M/F 0805 39E 5%
Q860		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R304		036-14270-00	RES M/F 0805 2K7 5%
Q870		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R306		036-12100-00	RES M/F 0805 10E 5%
Q880		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R308		036-12100-00	RES M/F 0805 10E 5%
Q890		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R310		036-10000-00	RES M/F 0805 ZERO OHM
Q895		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R312		036-14330-00	RES M/F 0805 3K3 5%
R160		036-12100-00	RES M/F 0805 10E 5%	R314		036-14470-00	RES M/F 0805 4K7 5%
R201		036-14470-00	RES M/F 0805 4K7 5%	R316		036-12470-00	RES M/F 0805 47E 5%
&R202	10	036-14470-00	RES M/F 0805 4K7 5%	R318		036-15100-00	RES M/F 0805 10K 5%
&R202	13	036-14470-00	RES M/F 0805 4K7 5%	R320		036-14390-00	RES M/F 0805 3K9 5%
&R202	15	036-14330-00	RES M/F 0805 3K3 5%	R322		036-14820-00	RES M/F 0805 8K2 5%
&R202	20	036-14470-00	RES M/F 0805 4K7 5%	R323		036-15100-00	RES M/F 0805 10K 5%
&R202	23	036-14470-00	RES M/F 0805 4K7 5%	R324		036-15220-00	RES M/F 0805 22K 5%
&R202	25	036-14330-00	RES M/F 0805 3K3 5%	R326		036-15100-00	RES M/F 0805 10K 5%
&R202	30	036-14470-00	RES M/F 0805 4K7 5%	R328		036-14100-00	RES M/F 0805 1K 5%
&R202	35	036-14330-00	RES M/F 0805 3K3 5%	R330		036-12470-00	RES M/F 0805 47E 5%
R204		036-15100-00	RES M/F 0805 10K 5%	R332		036-13330-00	RES M/F 0805 30K 5%
R205		036-16220-00	RES M/F 0805 220K 5%	R334		045-03150-01	RES NTC 150E 0.5W 5MM DISC
R207		036-14820-00	RES M/F 0805 8K2 5%	R336		036-13470-00	RES M/F 0805 470E 5%
&R209	10	036-15220-00	RES M/F 0805 22K 5%	R338		036-14100-00	RES M/F 0805 1K 5%
&R209	13	036-15220-00	RES M/F 0805 22K 5%	R339		036-15100-00	RES M/F 0805 10K 5%
&R209	15	036-15180-00	RES M/F 0805 18K 5%	R340		036-10000-00	RES M/F 0805 ZERO OHM
&R209	20	036-15220-00	RES M/F 0805 22K 5%	R341		036-10000-00	RES M/F 0805 ZERO OHM
&R209	23	036-15220-00	RES M/F 0805 22K 5%	R342		036-16150-00	RES M/F 0805 150K 5%
&R209	25	036-15180-00	RES M/F 0805 18K 5%	&R344	10	036-15560-00	RES M/F 0805 56K 5%
&R209	30	036-15220-00	RES M/F 0805 22K 5%	&R344	13	036-15560-00	RES M/F 0805 56K 5%
&R209	35	036-15180-00	RES M/F 0805 18K 5%	&R344	15	036-15820-00	RES M/F 0805 82K 5%
R210		036-15150-00	RES M/F 0805 15K 5%	&R344	20	036-15560-00	RES M/F 0805 56K 5%
R211		036-15390-00	RES M/F 0805 39K 5%	&R344	23	036-15560-00	RES M/F 0805 56K 5%
R213		036-14270-00	RES M/F 0805 2K7 5%	&R344	25	036-15820-00	RES M/F 0805 82K 5%
R215		036-15150-00	RES M/F 0805 15K 5%	&R344	30	036-15560-00	RES M/F 0805 56K 5%
R218		036-14390-00	RES M/F 0805 3K9 5%	&R344	35	036-15820-00	RES M/F 0805 82K 5%
&R219	10	036-14820-00	RES M/F 0805 8K2 5%	R346		036-12100-00	RES M/F 0805 10E 5%
&R219	13	036-14820-00	RES M/F 0805 8K2 5%	R348		036-13220-00	RES M/F 0805 220E 5%
&R219	15	036-14470-00	RES M/F 0805 4K7 5%	R351		036-15100-00	RES M/F 0805 10K 5%
&R219	20	036-14820-00	RES M/F 0805 8K2 5%	R352		036-16390-00	RES M/F 0805 390K 5%
&R219	23	036-14820-00	RES M/F 0805 8K2 5%	R354		036-17100-00	RES M/F 0805 1M 5%
&R219	25	036-14470-00	RES M/F 0805 4K7 5%	R356		036-13180-00	RES M/F 0805 180E 5%
&R219	30	036-14820-00	RES M/F 0805 8K2 5%	R358		036-12470-00	RES M/F 0805 47E 5%
&R219	35	036-14470-00	RES M/F 0805 4K7 5%	R360		036-15150-00	RES M/F 0805 15K 5%
R221		036-15470-00	RES M/F 0805 47K 5%	R362		036-14330-00	RES M/F 0805 3K3 5%
R222		036-16100-00	RES M/F 0805 100K 5%	R364		036-14100-00	RES M/F 0805 1K 5%
%R223		036-12100-00	RES M/F 0805 10E 5%	R366		036-14330-00	RES M/F 0805 3K3 5%
R224		036-14390-00	RES M/F 0805 3K9 5%	R368		036-15220-00	RES M/F 0805 22K 5%
R225		036-13470-00	RES M/F 0805 470E 5%	R370		036-16100-00	RES M/F 0805 100K 5%
R227		036-14100-00	RES M/F 0805 1K 5%	R372		036-14270-00	RES M/F 0805 2K7 5%
R229		036-14470-00	RES M/F 0805 4K7 5%	R374		036-14100-00	RES M/F 0805 1K 5%
R230		036-14470-00	RES M/F 0805 4K7 5%	R376		036-10000-00	RES M/F 0805 ZERO OHM
R232		036-15470-00	RES M/F 0805 47K 5%	R378		036-16100-00	RES M/F 0805 100K 5%
R233		036-14820-00	RES M/F 0805 8K2 5%	R380		036-15100-00	RES M/F 0805 10K 5%
R234		036-15470-00	RES M/F 0805 47K 5%	R382		036-15470-00	RES M/F 0805 47K 5%
R236		036-15470-00	RES M/F 0805 47K 5%	R384		036-15470-00	RES M/F 0805 47K 5%
R238		036-11470-00	RES M/F 0805 4E7 10%	R386		036-15120-00	RES M/F 0805 12K 5%
R239		036-14100-00	RES M/F 0805 1K 5%	R388		036-15100-00	RES M/F 0805 10K 5%
R241		036-14100-00	RES M/F 0805 1K 5%	R390		045-05100-01	RES NTC 10K 5% 5MM DISC
R242		036-13100-00	RES M/F 0805 100E 5%	R392		036-10000-00	RES M/F 0805 ZERO OHM
R244		036-14680-00	RES M/F 0805 6K8 5%	R393		036-15100-00	RES M/F 0805 10K 5%
R245		036-14100-00	RES M/F 0805 1K 5%	R394		036-12470-00	RES M/F 0805 47E 5%
R247		036-14220-00	RES M/F 0805 2K2 5%	R395		036-10000-00	RES M/F 0805 ZERO OHM
R249		036-15100-00	RES M/F 0805 10K 5%	R396		036-13390-00	RES M/F 0805 390E 5%
R251		036-15390-00	RES M/F 0805 39K 5%	R397		036-13820-00	RES M/F 0805 820E 5%
R252		036-14470-00	RES M/F 0805 4K7 5%	R398		036-14220-00	RES M/F 0805 2K2 5%
R254		036-14820-00	RES M/F 0805 8K2 5%	R399		045-05100-01	RES NTC 10K 5% 5MM DISC
R255		036-15470-00	RES M/F 0805 47K 5%	R405		036-10000-00	RES M/F 0805 ZERO OHM
R256		036-14470-00	RES M/F 0805 4K7 5%	R410		036-10000-00	RES M/F 0805 ZERO OHM
R258		036-15470-00	RES M/F 0805 47K 5%	R415		036-13330-00	RES M/F 0805 330E 5%
R260		036-11470-00	RES M/F 0805 4E7 10%	R420		036-12100-00	RES M/F 0805 10E 5%
R261		036-13150-00	RES M/F 0805 150E 5%	R425		036-14100-00	RES M/F 0805 1K 5%
R262		036-14100-00	RES M/F 0805 1K 5%	R430		036-13150-00	RES M/F 0805 150E 5%
R264		036-15270-00	RES M/F 0805 27K 5%	R435		036-12100-00	RES M/F 0805 10E 5%
R265		036-13100-00	RES M/F 0805 100E 5%	R440		036-10000-00	RES M/F 0805 ZERO OHM
R266		036-15220-00	RES M/F 0805 22K 5%	R445		036-13470-00	RES M/F 0805 470E 5%
R267		036-16330-00	RES M/F 0805 330K 5%	R450		036-12100-00	RES M/F 0805 10E 5%
R269		036-14220-00	RES M/F 0805 2K2 5%	R455		036-13470-00	RES M/F 0805 470E 5%
R271		036-16100-00	RES M/F 0805 100K 5%	R460		036-13180-00	RES M/F 0805 180E 5%
R272		036-15470-00	RES M/F 0805 47K 5%	R465		036-12330-00	RES M/F 0805 33E 5%
R273		036-15150-00	RES M/F 0805 15K 5%	R470		036-13180-00	RES M/F 0805 180E 5%
R275		036-13100-00	RES M/F 0805 100E 5%	R475		036-12470-00	RES M/F 0805 47E 5%
R277		036-14560-00	RES M/F 0805 5K6 5%	R510		036-14220-00	RES M/F 0805 2K2 5%
R278		036-16220-00	RES M/F 0805 220K 5%	R515		036-12560-00	RES M/F 0805 56E 5%
R280		036-16100-00	RES M/F 0805 100K 5%	R555		036-14100-00	RES M/F 0805 1K 5%
R281		036-14470-00	RES M/F 0805 4K7 5%	R615		036-13100-00	RES M/F 0805 100E 5%
R282		036-16100-00	RES M/F 0805 100K 5%	R617		036-10000-00	RES M/F 0805 ZERO OHM
R284		036-13100-00	RES M/F 0805 100E 5%	R619		032-31100-00	RES M/F PWR 1E0 5% 1W 12X4.5MM
				R621		032-31100-00	RES M/F PWR 1E0 5% 1W 12X4.5MM

Ref	Var	IPN	Description	Ref	Var	IPN	Description
R625		036-14100-00	RES M/F 0805 1K 5%	R851		036-13470-00	RES M/F 0805 470E 5%
R629		032-33270-00	RES M/F PWR 270E 5% 1W 12X4.5	R852		036-14470-00	RES M/F 0805 4K7 5%
R633		036-14680-00	RES M/F 0805 6K8 5%	R853		036-13470-00	RES M/F 0805 470E 5%
R636		036-12330-00	RES M/F 0805 33E 5%	R854		036-16330-00	RES M/F 0805 330K 5%
R637		036-12330-00	RES M/F 0805 33E 5%	R855		036-15470-00	RES M/F 0805 47K 5%
R641		036-14150-00	RES M/F 0805 1K5 5%	R856		036-16150-00	RES M/F 0805 150K 5%
R645		036-13470-00	RES M/F 0805 470E 5%	R857		036-16150-00	RES M/F 0805 150K 5%
R649		036-14470-00	RES M/F 0805 4K7 5%	R858		036-15270-10	RES M/F 0805 27K 1%
R653		036-15100-00	RES M/F 0805 10K 5%	R859		036-17120-10	RES MF 0805 CHIP 1M2 1%
R681		036-13100-00	RES M/F 0805 100E 5%	R860		036-16820-10	RES MF 0805 CHIP 820K 1%
R685		036-15150-00	RES M/F 0805 15K 5%	R861		036-14510-10	RES MF 0805 CHIP 5K1 1%
R689		036-12100-00	RES M/F 0805 10E 5%	R863		036-14470-00	RES M/F 0805 4K7 5%
R693		036-16100-00	RES M/F 0805 100K 5%	R865		036-14270-00	RES M/F 0805 2K7 5%
R696		036-15560-00	RES M/F 0805 56K 5%	R866		036-16820-00	RES M/F 0805 820K 5%
R701		036-12220-00	RES M/F 0805 22E 5%	R867		036-16820-00	RES M/F 0805 820K 5%
R702		036-17100-00	RES M/F 0805 1M 5%	R868		036-14470-00	RES M/F 0805 4K7 5%
R703		036-17100-00	RES M/F 0805 1M 5%	R869		036-15270-10	RES M/F 0805 27K 1%
R706		036-15150-00	RES M/F 0805 15K 5%	R870		036-17120-10	RES MF 0805 CHIP 1M2 1%
R707		036-15470-00	RES M/F 0805 47K 5%	R871		036-16820-10	RES MF 0805 CHIP 820K 1%
R708		036-13100-00	RES M/F 0805 100E 5%	R872		036-14510-10	RES MF 0805 CHIP 5K1 1%
R709		036-13100-00	RES M/F 0805 100E 5%	R873		036-14220-00	RES M/F 0805 2K2 5%
R710		036-13100-00	RES M/F 0805 100E 5%	R875		036-14470-00	RES M/F 0805 4K7 5%
R711		036-13100-00	RES M/F 0805 100E 5%	R876		036-16100-00	RES M/F 0805 100K 5%
R712		036-12100-00	RES M/F 0805 10E 5%	R877		036-16100-00	RES M/F 0805 100K 5%
R742		036-13150-00	RES M/F 0805 150E 5%	R878		036-16100-00	RES M/F 0805 100K 5%
R743		036-13150-00	RES M/F 0805 150E 5%	R879		036-16100-00	RES M/F 0805 100K 5%
R744		036-12220-00	RES M/F 0805 22E 5%	R881		036-15470-00	RES M/F 0805 47K 5%
R746		036-12220-00	RES M/F 0805 22E 5%	R882		036-15470-00	RES M/F 0805 47K 5%
R747		036-12220-00	RES M/F 0805 22E 5%	R884		036-16150-00	RES M/F 0805 150K 5%
R748		036-15470-00	RES M/F 0805 47K 5%	R885		036-16150-00	RES M/F 0805 150K 5%
R749		036-15470-00	RES M/F 0805 47K 5%	R886		036-15100-10	RES M/F 0805 10K 1%
R750		036-12220-00	RES M/F 0805 22E 5%	R887		036-14100-10	RES M/F 0805 CHIP 1K 1%
R752		036-12220-00	RES M/F 0805 22E 5%	R888		036-14820-10	RES M/F 0805 8K2 1%
R753		036-17100-00	RES M/F 0805 1M 5%	R889		036-16100-00	RES M/F 0805 100K 5%
R754		036-14100-00	RES M/F 0805 1K 5%	R890		036-16150-00	RES M/F 0805 150K 5%
R756		036-16470-00	RES M/F 0805 470K 5%	R891		036-16100-00	RES M/F 0805 100K 5%
R757		036-16470-00	RES M/F 0805 470K 5%	R892		036-16330-00	RES M/F 0805 330K 5%
R758		036-14120-00	RES M/F 0805 1K2 5%	R894		036-14470-00	RES M/F 0805 4K7 5%
R759		036-13330-00	RES M/F 0805 330E 5%	R895		036-15100-00	RES M/F 0805 10K 5%
R760		036-13180-00	RES M/F 0805 180E 5%	R897		036-15100-00	RES M/F 0805 10K 5%
R762		036-13100-00	RES M/F 0805 100E 5%	R898		036-16470-00	RES M/F 0805 470K 5%
R763		036-13100-00	RES M/F 0805 100E 5%	RL210		237-00010-22	RELAY 12V DPDT 8PIN DIL PCB MT
R765		036-13680-00	RES M/F 0805 680E 5%	RV205		040-05100-22	POT 10K LOG DUAL PCB 6 OD SFT
R766		036-14100-00	RES M/F 0805 1K 5%	RV210		040-05100-23	POT 10K LOG PCB 15MM SLOT SFT
R767		036-13680-00	RES M/F 0805 680E 5%	RV220		042-05100-06	RES PRE 10K CAR 6MM FLAT
R769		036-13180-00	RES M/F 0805 180E 5%	RV230		040-05100-21	POT 10K LIN PCB 15MM SLOT SFT
R771		036-14820-00	RES M/F 0805 8K2 5%	RV235		042-05100-06	RES PRE 10K CAR 6MM FLAT
R772		036-15220-00	RES M/F 0805 22K 5%	RV310		042-04220-06	RES PRE 2K2 CAR 6MM FLAT
R774		036-14820-00	RES M/F 0805 8K2 5%	RV320		042-04220-06	RES PRE 2K2 CAR 6MM FLAT
R775		036-15180-00	RES M/F 0805 18K 5%				
R780		036-12680-00	RES M/F 0805 68E 5%	SHLD610		062-00010-13	CAN 10MM SQ X 11MM CAN A4M1017
R782		036-12180-00	RES M/F 0805 18E 5%	SK320		240-04020-64	SKT JACK 0.98MM PCB MTG 64 WAY
R784		036-13120-00	RES M/F 0805 120E 5%	SK330		240-04020-64	SKT JACK 0.98MM PCB MTG 64 WAY
R785		036-14330-00	RES M/F 0805 3K3 5%	SK501		240-04021-77	SKT JACK 1.3 PCB MT 64W
R786		036-12100-00	RES M/F 0805 10E 5%	SK502		240-04021-77	SKT JACK 1.3 PCB MT 64W
R787		036-12100-00	RES M/F 0805 10E 5%	SK503		240-04021-77	SKT JACK 1.3 PCB MT 64W
R790		036-13390-00	RES M/F 0805 390E 5%	SK504		240-04021-77	SKT JACK 1.3 PCB MT 64W
R791		036-14100-00	RES M/F 0805 1K 5%	SK505		240-04021-77	SKT JACK 1.3 PCB MT 64W
R804		036-15470-00	RES M/F 0805 47K 5%	SK513		240-04021-77	SKT JACK 1.3 PCB MT 64W
R805		036-13470-00	RES M/F 0805 470E 5%	SK522		240-04021-77	SKT JACK 1.3 PCB MT 64W
R808		036-12100-00	RES M/F 0805 10E 5%	SK531		240-04021-77	SKT JACK 1.3 PCB MT 64W
R809		036-14470-00	RES M/F 0805 4K7 5%	SK532		240-04021-77	SKT JACK 1.3 PCB MT 64W
R810		036-14470-00	RES M/F 0805 4K7 5%	SK533		240-04021-77	SKT JACK 1.3 PCB MT 64W
R811		036-14470-00	RES M/F 0805 4K7 5%	SK534		240-04021-77	SKT JACK 1.3 PCB MT 64W
R812		036-14470-00	RES M/F 0805 4K7 5%	SK535		240-04021-77	SKT JACK 1.3 PCB MT 64W
R813		036-14470-00	RES M/F 0805 4K7 5%	SK805		240-10000-07	CONN SMD SKT 16W 2R M-MATCH
R815		036-15470-00	RES M/F 0805 47K 5%	SK810		240-04020-42	SKT 44 PIN SMD PLCC
R816		036-16150-00	RES M/F 0805 150K 5%	SW201		230-00010-30	SWITCH TOG SPDT R-ANG PCB MTG
R818		036-14470-00	RES M/F 0805 4K7 5%	T210		053-00010-17	XFMR T4030 LINE MATCH POTCORE
R819		036-14470-00	RES M/F 0805 4K7 5%	T610		050-00016-50	COIL TAIT NO 650 455KHZ
R820		036-15470-00	RES M/F 0805 47K 5%	&XF300A 10		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R821		036-15470-00	RES M/F 0805 47K 5%	&XF300A 13		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R822		036-15470-00	RES M/F 0805 47K 5%	&XF300A 15		276-00010-57	FLTR XTAL 45MHZ 7.5K 4POLE 1PR
R823		036-15470-00	RES M/F 0805 47K 5%	&XF300A 20		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R824		036-14220-00	RES M/F 0805 2K2 5%	&XF300A 23		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R825		036-14220-00	RES M/F 0805 2K2 5%	&XF300A 25		276-00010-57	FLTR XTAL 45MHZ 7.5K 4POLE 1PR
R826		036-14220-00	RES M/F 0805 2K2 5%	&XF300A 30		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R827		036-14220-00	RES M/F 0805 2K2 5%	&XF300A 35		276-00010-57	FLTR XTAL 45MHZ 7.5K 4POLE 1PR
R828		036-14220-00	RES M/F 0805 2K2 5%	&XF300B 10		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R829		036-14220-00	RES M/F 0805 2K2 5%	&XF300B 13		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R830		036-14220-00	RES M/F 0805 2K2 5%	&XF300B 15		276-00010-57	FLTR XTAL 45MHZ 7.5K 4POLE 1PR
R831		036-14220-00	RES M/F 0805 2K2 5%	&XF300B 20		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R832		036-14220-00	RES M/F 0805 2K2 5%	&XF300B 23		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R833		036-14220-00	RES M/F 0805 2K2 5%	&XF300B 25		276-00010-57	FLTR XTAL 45MHZ 7.5K 4POLE 1PR
R835		036-14220-00	RES M/F 0805 2K2 5%	&XF300B 30		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R836		036-14220-00	RES M/F 0805 2K2 5%	&XF300B 35		276-00010-57	FLTR XTAL 45MHZ 7.5K 4POLE 1PR
R837		036-14220-00	RES M/F 0805 2K2 5%	&XF301 10		276-00010-56	FLTR XTAL 45MHZ 14KHZ BW 2 P
R840		036-14220-00	RES M/F 0805 2K2 5%	&XF301 13		276-00010-56	FLTR XTAL 45MHZ 14KHZ BW 2 P
R841		036-14220-00	RES M/F 0805 2K2 5%	&XF301 15		276-00010-54	FLTR XTAL 45MHZ 7.5KHZ 2POLE
R842		036-14220-00	RES M/F 0805 2K2 5%	&XF301 20		276-00010-56	FLTR XTAL 45MHZ 14KHZ BW 2 P
R843		036-14220-00	RES M/F 0805 2K2 5%	&XF301 23		276-00010-56	FLTR XTAL 45MHZ 14KHZ BW 2 P
R844		036-15470-00	RES M/F 0805 47K 5%				
R845		036-16150-00	RES M/F 0805 150K 5%				
R846		036-14470-00	RES M/F 0805 4K7 5%				
R847		036-14470-00	RES M/F 0805 4K7 5%				
R848		036-13470-00	RES M/F 0805 470E 5%				
R849		036-13470-00	RES M/F 0805 470E 5%				
R850		036-13470-00	RES M/F 0805 470E 5%				

Ref	Var	IPN	Description	Ref	Var	IPN	Description
&XF301	25	276-00010-54	FLTR XTAL 45MHZ 7.5KHZ 2POLE				
&XF301	30	276-00010-56	FLTR XTAL 45MHZ 14KHZ BW 2 P				
&XF301	35	276-00010-54	FLTR XTAL 45MHZ 7.5KHZ 2POLE				
&XF302	10	276-00010-14	FLTR CER 455KHZ 15KHZ B/W				
&XF302	13	276-00010-76	FLTR CER 455KHZ 12KHZ B/W				
&XF302	15	276-00010-13	FLTR CER 455KHZ 9KHZ B/W				
&XF302	20	276-00010-14	FLTR CER 455KHZ 15KHZ B/W				
&XF302	23	276-00010-76	FLTR CER 455KHZ 12KHZ B/W				
&XF302	25	276-00010-13	FLTR CER 455KHZ 9KHZ B/W				
&XF302	30	276-00010-14	FLTR CER 455KHZ 15KHZ B/W				
&XF302	35	276-00010-13	FLTR CER 455KHZ 9KHZ B/W				
X310		274-00010-22	XTAL 44.545MHZ TE/22 HC45/U				

T855 Mechanical & Miscellaneous Parts (220-01396-02)

IPN	Legend	Description	IPN	Legend	Description
066-00010-20	1	SLUG BRASS A4M764 HELIC RESNTR			
070-01001-00	15/28	D-RANGE 15 WAY COMPL T800			
070-02001-00		LED RED COMPL T800 RX/TX/EX			
070-02002-00		LED GREEN COMPL T800 RX/TX/EX			
200-00010-04		WIRE T/C 0.7			
220-01145-02	2	PCB T855/856/857 VCO			
220-01396-02	3	PCB T855 SERIES II			
230-00010-31	4	SWITCH COVER FOR 230-00010-30			
240-02100-06	5	SKT COAX N TYPE PNL MTG OP-TER			
240-04020-62		SKT 2 W RECEP SHORTING LINK PL210/220/230/240/250/260/270			
303-11169-03	6	CHASSIS PAINTED T800 SERIES			
303-23118-00	7	COVER A3M2247 D RANGE T855/7			
303-50074-00	8	CLIP A3M2246 SPRING CLAMP T857			
308-01007-01	9	HANDLE BASE STATION SERIES II			
308-01048-00	10	HOUSING A3M2378 DOUBLET H/RES			
311-01015-00	11	KNOB 15MM & SKIRT 6MM SFT			
312-01052-01	12	LID TOP PNTD A1M2364 T800			
312-01053-01	13	LID BOTTOM PNTD A1M2364 T800			
316-06622-00	14	PNL FRT RX T800 SERIES II			
345-00040-10	16	SCRW M3X6MM P/POZ ST BZ			
349-00020-36	17	LIM)SCREW TT M3X8m PANTORX BLK			
349-00020-43	18	SCRW T/T M4X12MM P/POZ BZ			
349-00020-45	19	SCRW T/T M4X20MM P/POZ BZ			
350-00016-42	20	SPACER 5MM HI 8MM ST 2.5MM HO			
352-00010-08	21	NUT M3 COLD FORM HEX ST BZ			
352-00010-29	22	NUT M4 NYLOC HEX			
352-00010-54	23	NUT BRASS HEX 1/4" UNF 3MM			
353-00010-10	24	WSHR M3 FLAT 7MMX0.6MM ST BZ			
353-00010-13	25	WSHR M3 S/PROOF INT BZ			
356-00010-03		TAG SOLDER 3MM LONG M614/3.2 Main PCB to chassis earth strap (via D-range shield).			
362-00010-23	26	GASKET SIL TO-220 CLIP MTG.			
362-00010-33	27	GROMMET LED MTG 3MM			
365-00011-53		LABEL 104X37MM			
365-00100-20		LABEL WHITE S/A 28X11MM			
365-01541-00		LABEL TX/RX/EX TYPE APR/SER NO			
399-00010-51		BAG PLASTIC 75X100MM			
410-01081-01		CRT T800 SERIES II			
410-01082-01		CRTN 10 T800 KIWI 423X410X360			

replace A4 pages B6.3.11/B6.3.12 with A3 pages B6.3.11/B6.3.12

replace A4 pages B6.3.11/B6.3.12 with A3 pages B6.3.11/B6.3.12

T855 Grid Reference Index (IPN 220-01396-02)

How To Use This Grid Reference Index

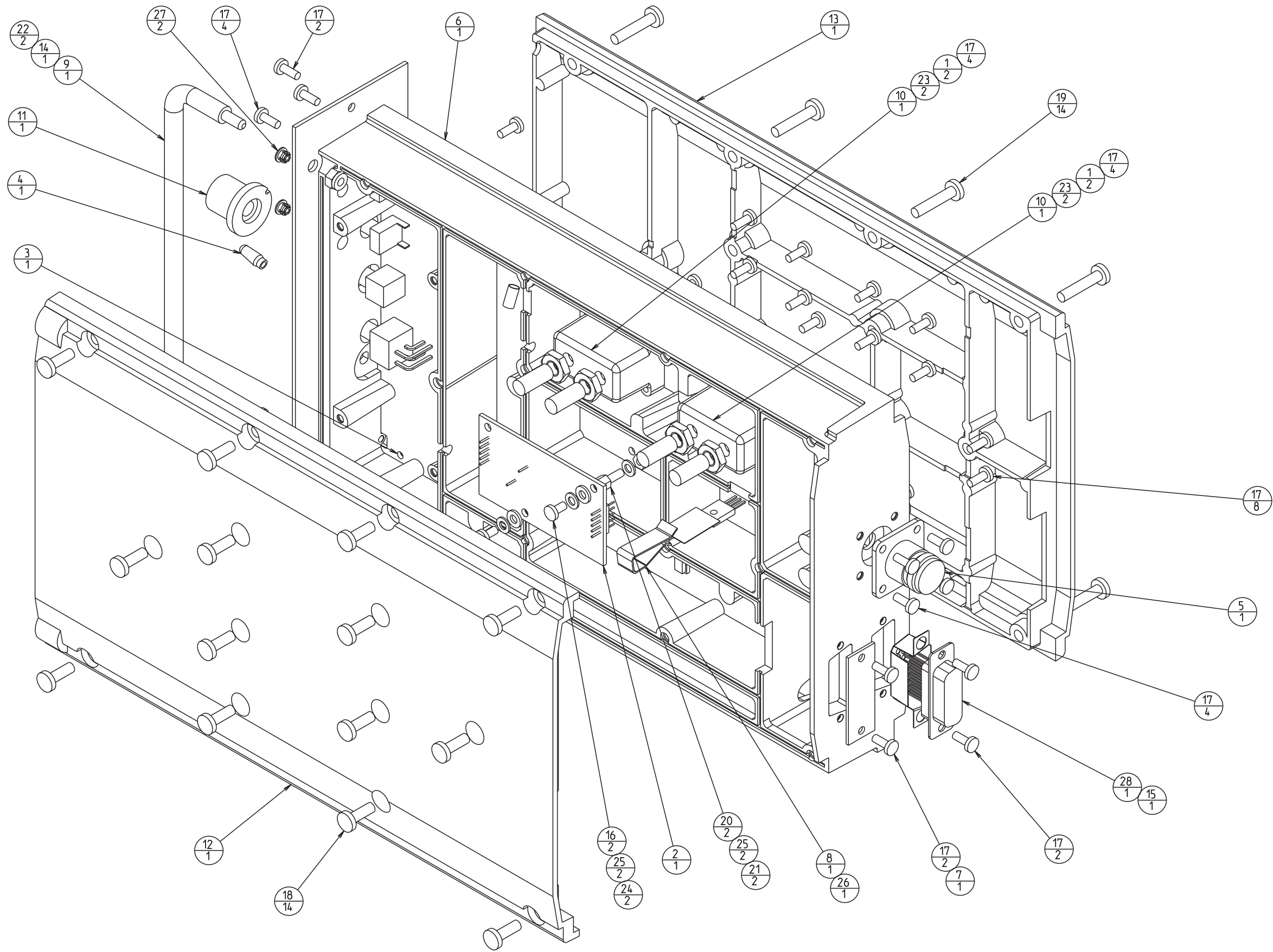
The first digit in the PCB layout reference is a "1" or "2", indicating the top or bottom side layout respectively, and the last two characters give the location of the component on that diagram.

The first digit in the circuit diagram reference is the sheet number, and the last two characters give the location of the component on that sheet.

Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit
C201	1:D7	2-B9	&C326	2:E7	3-E5	C631A	1:M5	6-M6	C812	1:K2	8-E5
&C203	2:C6	2-B8	C328	2:E7	3-F5	C631B	1:N5	6-M6	C813	1:J3	8-H5
&C205	2:C6	2-B8	C330	2:F7	3-F6	C637	1:M6	6-P5	C814	1:L2	8-Q4
C207	1:D6	2-C8	C332	2:E7	3-G4	C640	1:M5	6-R5	C815	1:N3	8-B2
C209	1:C7	2-E8	&C334	2:F7	3-H5	C651	1:M5	6-M4	C816	1:N3	8-B2
C210	2:C7	2-C7	&C336	2:E7	3-H5	C658	1:M5	6-J1	C818	1:N3	8-C1
C211	2:C7	2-D7	&C338	2:E7	3-J5	C660	1:L5	6-K1	C819	1:N3	8-D1
C213	2:C7	2-E7	&C340	2:E7	3-J5	C665	1:L5	6-K1	C820	1:N4	8-E1
C215	2:C7	2-E7	C342	2:E6	3-K5	C670	1:L6	6-L1	C822	1:N3	8-D2
C217	2:C7	2-E7	C344	2:E6	3-K6	C673	1:L5	6-P2	C824	1:N3	8-D2
C219	2:C6	2-H6	C346	2:E6	3-M5	C677	1:M6	6-P1	C826	1:N3	8-D0
C221	2:C6	2-H6	C348	2:E6	3-M5	C681	1:M5	6-R3	C828	1:N3	8-D0
C222	1:C6	2-J9	C350	2:E6	3-M6	C684	1:M6	6-R3	C830	1:M4	8-F1
C223	2:C6	2-J8	C351	2:E4	3-M6	C687	1:L6	6-Q1	C832	1:M3	8-G2
C225	2:C6	2-J8	C352	2:E4	3-N5	C690	1:L6	6-R1	C833	1:M4	8-G1
C227	2:C6	2-J8	C353	2:F4	3-N6	C693	1:L6	6-R1	C834	1:M3	8-H2
C229	1:C6	2-K8	C354	1:F5	3-N6	C700	1:J4	7-A8	C836	1:M3	8-G0
C231	1:B3	2-K8	C356	2:E5	3-P6	C702	1:J4	7-B8	C837	1:M3	8-G0
C233	1:B7	2-J7	C357	2:E5	3-Q6	C703	1:J3	7-B7	C838	1:N4	8-H0
C235	2:C5	2-M6	C358	2:F5	3-Q6	C705	1:J3	7-B7	C840	1:M2	8-K1
C237	2:C6	2-M5	C360	2:F4	3-R6	C707	1:J3	7-B5	C842	1:N2	8-L0
C238	2:C5	2-N7	C362	2:E6	3-R4	C708	1:J3	7-B5	C844	1:N3	8-L0
C239	1:C5	2-P6	C364	2:E5	3-A2	C709	1:H3	7-C5	C846	1:M2	8-M0
C240A	2:B5	2-Q8	C366	2:E5	3-B2	C710A	1:H3	7-D8	C848	1:N2	8-M0
C240B	2:B5	2-R8	C368	2:F5	3-C2	C710B	1:H4	7-D8	C850	1:M2	8-N0
C240C	1:C5	2-R8	C370	2:E4	3-C1	C710C	1:J3	7-F8	C873	1:M4	8-N2
C249	1:B5	2-Q7	C372	2:F3	3-E1	C711	1:J2	7-E7	C876	1:M4	8-P2
C251	2:A5	2-R7	C374	2:F3	3-E3	C712	1:H2	7-E7	C879	1:M3	8-Q0
C253	1:C8	2-G5	C376	2:E3	3-E2	C713	1:H2	7-F7	C910	2:P6	9-E6
C255	2:B7	2-L2	C378	2:F3	3-E2	C735	1:J2	7-A1	C920	2:P6	9-F6
C257	2:B6	2-M2	C380	2:E3	3-F2	C736	1:J2	7-B1	C930	2:P7	9-G6
C259	2:B6	2-M3	C382	1:F3	3-G3	C740A	1:H2	7-B4	C940	2:P7	9-H6
C260A	2:B6	2-P4	C384	2:E4	3-H2	C740B	1:H2	7-B3	C950	2:N8	9-J6
C260B	2:B6	2-P4	C386	2:E4	3-J2	C741A	1:H2	7-C4			
C260C	1:B6	2-P4	C388	2:E5	3-M2	C741B	1:G2	7-C3	D111	1:P4	1-R1
C261	1:C6	2-N2	C390	1:E6	3-M2	C742A	1:H2	7-D4	D220	2:D8	2-E4
C262	1:B5	2-P3	C392	2:E4	3-N2	C742B	1:H3	7-D3	D220	2:D8	2-E4
C264	2:B5	2-P2	C394	2:F3	3-P2	C743	1:H2	7-B1	D230	2:C6	2-J4
C266	1:D2	2-R3	C410	2:L8	4-E4	C745	1:G3	7-D1	D230	2:C6	2-J5
C268	1:D3	2-R3	C420	2:L8	4-F5	C750	1:H4	7-H7	D240	2:C8	2-D2
C270	2:B8	2-E3	C430	2:L8	4-G6	C757	1:G4	7-G5	D240	2:C8	2-D3
C272	2:B8	2-D1	C440	1:M7	4-H6	C759	1:G4	7-G4	D250	1:B7	2-H1
C274	2:B8	2-E1	C450	2:K8	4-G5	C761	1:H3	7-J4	D260	2:A7	2-H1
C276	2:C4	2-B0	%C460	2:K8	4-H4	C762	1:G3	7-J4	D270	2:B7	2-H1
C278	2:C4	2-C0	C470	2:G7	4-P5	C764	1:H3	7-J2	D270	2:B7	2-J1
C280	2:C4	2-F1	C480	2:G8	4-Q5	C765	1:G3	7-J2	D280	1:B7	2-K1
C286	2:B8	2-F1	C505	1:K6	5-L8	C767	1:H3	7-K3	D285	1:D2	2-L1
C302	2:F8	3-C9	C515	1:H5	5-F3	C769	1:H4	7-M4	D289	1:C2	2-K0
C304	2:F8	3-D9	C530	1:K5	5-K1	C770	1:H3	7-N4	D290	1:C2	2-L0
C306	2:F8	3-D8	C535	1:K5	5-L1	C772	1:G4	7-M2	D295	1:C2	2-L0
C308	2:F8	3-E8	C610A	1:M5	6-C8	C774	1:H4	7-N2	D310	2:E4	3-G1
C310	2:F8	3-E8	C610B	1:M5	6-D8	C776	1:H4	7-N1	D310	2:E4	3-G2
C312	1:F7	3-F8	C611A	1:L5	6-E8	C782	1:G2	7-N0	D610	1:N5	6-L6
C314	2:F8	3-F8	C611B	1:M5	6-F8	C784	1:G2	7-Q1	D610	1:N5	6-M6
C316	2:F9	3-F9	C623	1:M6	6-N8	C786	1:G2	7-R1	D640	1:L5	6-M1
&C318	2:E8	3-A5	C625	1:M6	6-Q8	C788	1:G3	7-P0	D640	1:L5	6-M2
&C320	2:E8	3-B5	C626	1:M6	6-R8	C791	1:G4	7-Q0	D730	1:H3	7-H1
&C322	2:E8	3-C5	C628	1:M6	6-R8	C792	1:G4	7-R0	D740	1:H3	7-J2
&C324	2:E7	3-E5	C630	1:M5	6-K4	C810	1:L4	8-K8	D820	1:J3	8-B7

Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit
D860	1:M2	8-N0	P100	1:Q6	1-R8	Q750	1:G4	7-G3	R287	2:B8	2-F2
D860	1:M2	8-N0	P160	1:P2	1-Q4	Q760	1:G3	7-H3	R288	2:B8	2-F1
D880	1:M2	8-R2	P170	1:P2	1-R4	Q770	1:H3	7-H1	R289	2:B7	2-G3
D880	1:M2	8-R2	P201	1:D4	2-A9	Q775	1:H3	7-K3	R290	2:B7	2-G3
			P204	1:D7	2-A9	Q780	1:H3	7-K3	R292	2:C8	2-G2
#FL410	1:M8	4-C5	P207	1:D6	2-A8	Q785	1:H3	7-K2	R293	2:B7	2-H1
#FL420	1:J8	4-K5	P210	1:D6	2-C7	Q790	1:H4	7-L3	R294	2:C3	2-H0
			P213	1:D3	2-A7	Q795	1:G3	7-P0	R295	2:B7	2-J1
IC210	1:C7	2-G7	P216	1:B2	2-A7	Q810	1:K2	8-C5	R296	2:A7	2-K1
IC210	1:C7	2-C7	P219	1:D7	2-A7	Q820	1:K2	8-C6	R297	1:B2	2-M0
IC210	1:C7	2-F7	P222	1:C5	2-A6	Q840	1:K2	8-F5	R298	2:D7	2-J0
IC240	1:B5	2-P7	P225	1:C8	2-A4	Q850	1:L2	8-G5	R299	2:C7	2-J0
IC260	1:B6	2-N2	P228	1:D8	2-A4	Q860	1:K4	8-B4	R302	2:F8	3-D8
IC270	1:B8	2-F3	P231	1:C7	2-A4	Q870	1:L4	8-C4	R304	2:F8	3-E9
IC270	1:B8	2-E2	P234	1:B7	2-A3	Q880	1:L2	8-L5	R306	2:F8	3-F8
IC270	1:B8	2-B2	P236	1:C8	2-A1	Q890	1:L4	8-K3	R308	2:F7	3-F8
IC280	1:C4	2-E1	P238	1:D3	2-A1	Q895	1:M3	8-P2	R310	2:E9	3-A5
IC280	1:C4	2-B0	P240	1:C8	2-G2				R312	2:F7	3-F5
IC280	1:C4	2-D0	P242	1:C7	2-G1	R160	1:P2	1-Q4	R314	2:E7	3-F4
IC310	1:E5	3-Q5	P244	1:C7	2-G8	R201	2:D6	2-B8	R316	2:F7	3-G6
IC310	1:E5	3-N5	P246	1:C6	2-H9	&R202	2:D6	2-B7	R318	2:F7	3-G5
IC310	1:E5	3-C2	P248	1:C6	2-H9	R204	2:C6	2-C9	R320	2:F7	3-H5
IC320	1:F3	3-N2	P250	1:B3	2-K8	R205	2:C7	2-C8	R322	2:E7	3-K5
IC410	1:G7	4-P5	P252	1:B2	2-L9	R207	2:C7	2-D8	R323	2:E6	3-K5
IC610	1:M5	6-D8	P254	1:B2	2-L9	&R209	2:C7	2-D8	R324	2:E6	3-L5
IC630	1:N5	6-K5	P256	1:B2	2-L8	R210	2:C7	2-D8	R326	2:E6	3-L6
IC640	1:M5	6-N5	P258	1:D3	2-P8	R211	2:C7	2-E8	R328	2:E6	3-M6
IC640	1:M5	6-J0	P260	1:D3	2-P7	R213	2:C7	2-G6	R330	2:E6	3-M6
IC640	1:M5	6-Q5	P263	1:B2	2-R6	R215	2:C6	2-G9	R332	2:E6	3-L5
IC650	1:L5	6-E5	P266	1:D2	2-R5	R218	2:C7	2-G8	R334	1:E6	3-M4
=IC700	1:J3	7-A8	P268	1:B2	2-R5	&R219	2:C7	2-G7	R336	2:E6	3-M4
IC710	1:H3	7-D7	P270	1:B2	2-R5	R221	2:C7	2-H7	R338	2:F4	3-N6
IC710	1:H3	7-J0	P280	1:B2	2-R4	R222	2:C7	2-H7	R339	2:E5	3-N5
IC710	1:H3	7-C6	P282	1:B2	2-R4	%R223	2:D6	2-J9	R340	2:F5	3-P5
IC710	1:H3	7-D6	P284	1:B3	2-R4	R224	2:C6	2-J8	R341	2:F5	3-Q5
IC710	1:H3	7-D6	P287	1:B2	2-R0	R225	2:C6	2-J8	R342	2:E5	3-Q6
IC710	1:H3	7-C6	P810	1:K2	8-A5	R227	2:B7	2-J7	&R344	2:F5	3-R6
IC710	1:H3	7-E8	P815	1:L4	8-C4	R229	2:C5	2-L6	R346	2:F5	3-R7
IC740	1:H2	7-D1	P820	1:K4	8-M8	R230	2:C6	2-M5	R348	2:E6	3-R5
IC750	1:H4	7-M3	P825	1:K4	8-M8	R232	2:B5	2-M7	%R349	2:E6	3-R4
IC750	1:H4	7-H6	P830	1:K4	8-M8	R233	2:C5	2-M7	R350	2:E5	3-A2
IC750	1:H4	7-H5	P835	1:K4	8-M7	R234	2:C5	2-N7	R351	2:E6	3-A2
IC820	1:L4	8-N5	P840	1:K4	8-M7	R236	2:B5	2-N7	R352	2:E5	3-B2
IC830	1:N4	8-J0				R238	2:A5	2-R6	R354	2:E5	3-B2
IC830	1:N4	8-F1	PL100	1:P3	1-F0	R239	2:B5	2-R7	R356	2:F4	3-C2
IC830	1:N4	8-F0	PL210	1:C6	2-B8	R241	2:D8	2-F5	R358	2:F3	3-D3
IC830	1:N4	8-H2	PL220	1:C6	2-H7	R242	2:C8	2-F4	R360	2:F3	3-D2
IC830	1:N4	8-E2	PL230	1:B2	2-L8	R244	2:C8	2-G4	R362	2:E4	3-D1
IC840	1:M2	8-L0	PL240	1:B6	2-K7	R245	2:C8	2-G5	R364	2:F3	3-D1
IC850	1:M3	8-N1	PL250	1:C8	2-C2	R247	2:B7	2-J4	R366	2:F3	3-D2
IC850	1:M3	8-Q2	PL260	1:C8	2-H3	R249	2:B6	2-J3	R368	2:E4	3-E1
IC850	1:M3	8-M2	PL270	1:C2	2-L1	R251	2:B7	2-L3	R370	2:E3	3-E2
IC850	1:M3	8-M2				R252	2:B7	2-L3	R372	2:E3	3-F3
IC850	1:M3	8-M0	Q210	2:C6	2-J8	R254	2:B7	2-L3	R374	2:E4	3-G2
			Q220	2:C5	2-M6	R255	2:B7	2-M3	R376	2:E4	3-F1
L230	1:D2	2-K2	Q230	2:C5	2-N6	R256	2:B6	2-M3	R378	2:E3	3-G3
L310	1:F8	3-D9	Q240	2:C8	2-H4	R258	2:B6	2-N3	R380	2:E4	3-G2
L320	1:F8	3-E8	Q245	2:B6	2-J4	R260	2:B5	2-P2	R382	2:E4	3-H2
L330	1:E8	3-B5	Q250	2:B8	2-G2	R261	2:B4	2-Q3	R384	2:E4	3-H2
L340	1:E8	3-C5	Q255	2:B7	2-H2	R262	2:B3	2-Q3	R386	2:E5	3-L3
L350	1:E7	3-E5	Q260	2:B7	2-K0	R264	2:B8	2-A3	R388	2:E5	3-L3
L360	1:F6	3-G5	Q270	2:C2	2-K0	R265	2:B8	2-A2	R390	1:E5	3-L2
L370	1:E7	3-J5	Q280	2:B7	2-L2	R266	2:B8	2-B2	R392	2:E5	3-L2
L380	1:E6	3-L6	Q290	2:B6	2-M2	R267	2:C8	2-C3	R393	2:E5	3-Q3
L385	1:E4	3-N6	Q310	1:F9	3-D9	R269	2:C8	2-B1	R394	2:E5	3-M2
L390	1:F5	3-Q6	Q320	2:F7	3-F5	R271	2:D3	2-A0	R395	2:F3	3-N2
L410	2:L9	4-F5	Q330	2:E6	3-L5	R272	2:C4	2-B1	R396	2:E3	3-P2
L420	1:M7	4-F6	Q340	2:E5	3-Q5	R273	2:C4	2-C1	R397	2:E3	3-Q2
L430	2:K8	4-H5	Q350	2:F4	3-D2	R275	2:C4	2-C1	R398	2:E3	3-Q1
L440	1:G8	4-Q5	Q360	2:E3	3-F2	R277	2:C4	2-C0	R399	1:E3	3-P1
L740	1:G3	7-Q0	Q410	2:L8	4-G5	R278	2:C4	2-C1	R405	2:N8	4-B5
L910	1:P6	9-E7	Q540	1:K5	5-K2	R280	2:C8	2-D3	R410	2:L8	4-E5
L920	1:P6	9-F7	Q620	1:N6	6-P8	R281	2:C8	2-D2	R415	2:L8	4-F4
L930	1:P7	9-G7	Q630	1:M6	6-P5	R282	2:B8	2-E2	R420	2:L8	4-G4
L940	1:P8	9-H7	Q660	1:L5	6-N1	R284	2:C8	2-F3	R425	2:L8	4-G5
			Q670	1:L6	6-Q2	R285	2:B8	2-F2	R430	2:L8	4-G6

Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit
R435	2:M7	4-G6	R808	1:K2	8-B6	R895	1:M2	8-Q1	X310	1:F4	3-N6
R440	2:K8	4-J5	R809	1:K2	8-C6	R897	1:M2	8-Q1			
R445	2:H8	4-N4	R810	1:L2	8-D6	R898	1:M2	8-Q2	&XF300A	1:E8	3-C5
R450	2:H8	4-N5	R811	1:L2	8-D6				&XF300B	1:E8	3-D5
R455	2:H8	4-N4	R812	1:K2	8-C6	RL210	1:C2	2-P4	&XF301	1:E7	3-H5
R460	2:G7	4-P6	R813	1:K2	8-C5	RL210	1:C2	2-K1	&XF302	1:F5	3-P5
R465	2:G7	4-P6	R815	1:K2	8-E4	RL210	1:C2	2-P5			
R470	2:G7	4-P6	R816	1:K2	8-F4						
R475	2:G7	4-P4	R818	1:K2	8-F5	RV205	1:B5	2-M7			
R510	1:K6	5-J9	R819	1:L2	8-F5	RV210	1:B7	2-K3			
R515	1:H6	5-J5	R820	1:K4	8-B4	RV220	1:D7	2-F5			
R555	1:K5	5-K1	R821	1:L4	8-C4	RV230	1:B8	2-A2			
R615	1:M5	6-C9	R822	1:L4	8-D3	RV235	1:C4	2-C0			
R617	1:M5	6-F8	R823	1:L4	8-D4	RV310	1:F4	3-E1			
R619	1:M6	6-L8	R824	1:K4	8-L8	RV320	1:E3	3-Q2			
R621	1:M6	6-L8	R825	1:K4	8-L8						
R625	1:N6	6-L7	R826	1:K4	8-L8	SHLD610	1:L6	6-J3			
R629	1:M5	6-P6	R827	1:K4	8-L7						
R633	1:M5	6-Q8	R828	1:K4	8-L7	SK320	1:E5	3-L1			
R636	1:N5	6-K6	R829	1:K4	8-P9	SK330	1:E3	3-Q1			
R637	1:N5	6-K5	R830	1:K3	8-P9	SK501	1:G6	5-D6			
R641	1:N5	6-L4	R831	1:K3	8-P9	SK502	1:G6	5-D5			
R645	1:N5	6-L5	R832	1:K3	8-P8	SK503	1:G6	5-D4			
R649	1:M5	6-M5	R833	1:K3	8-P8	SK504	1:G5	5-D3			
R653	1:M5	6-Q4	R835	1:K3	8-P8	SK505	1:G5	5-D2			
R681	1:L5	6-L2	R836	1:K3	8-P8	SK513	1:H5	5-G3			
R685	1:L5	6-N2	R837	1:K3	8-P7	SK522	1:H6	5-K5			
R689	1:L6	6-Q3	R840	1:K3	8-P7	SK531	1:K6	5-N6			
R693	1:L6	6-Q1	R841	1:K3	8-P7	SK532	1:K5	5-N5			
R696	1:L6	6-Q1	R842	1:K3	8-P6	SK533	1:K5	5-N4			
R701	1:J4	7-A9	R843	1:K3	8-P6	SK534	1:K5	5-N3			
R702	1:J4	7-C9	R844	1:L2	8-M5	SK535	1:K5	5-N2			
R703	1:J4	7-C8	R845	1:L2	8-M5	SK805	1:K3	8-Q9			
R706	1:J3	7-B6	R846	1:L4	8-L6	SK805	1:K3	8-Q9			
R707	1:J3	7-C7	R847	1:L4	8-M6	SK805	1:K3	8-Q7			
R708	1:J2	7-D7	R848	1:L4	8-Q5	SK805	1:K3	8-Q8			
R709	1:H2	7-E7	R849	1:J2	8-Q5	SK805	1:K3	8-Q6			
R710	1:J3	7-B6	R850	1:J2	8-Q4	SK805	1:K3	8-Q8			
R711	1:H3	7-B6	R851	1:L4	8-Q4	SK805	1:K3	8-Q6			
R712	1:J4	7-E9	R852	1:L2	8-N4	SK805	1:K3	8-Q8			
R742	1:H2	7-B4	R853	1:L2	8-Q4	SK805	1:K3	8-Q7			
R743	1:H2	7-C5	R854	1:N3	8-C1	SK805	1:K3	8-Q8			
R744	1:G2	7-D4	R855	1:N3	8-C2	SK805	1:K3	8-Q7			
R746	1:H3	7-E4	R856	1:N3	8-D2	SK805	1:K3	8-Q5			
R747	1:H3	7-E5	R857	1:N4	8-D2	SK805	1:K3	8-Q7			
R748	1:J2	7-A1	R858	1:N3	8-C0	SK805	1:K3	8-Q6			
R749	1:J2	7-B1	R859	1:N3	8-D0	SK805	1:K3	8-Q9			
R750	1:H4	7-H7	R860	1:N3	8-E0	SK805	1:K3	8-Q6			
R752	1:G4	7-F5	R861	1:M3	8-F0	SK810	1:L3	8-H5			
R753	1:G4	7-F3	R863	1:N3	8-F2						
R754	1:G3	7-F3	R865	1:M3	8-G2	SL210	2:B8	2-E2			
R756	1:G3	7-G5	R866	1:M3	8-H2	SL220	2:B8	2-D2			
R757	1:G4	7-H4	R867	1:M3	8-G1						
R758	1:H3	7-H4	R868	1:N4	8-G0	SW201	1:B4	2-A6			
R759	1:H3	7-J4	R869	1:M3	8-G0						
R760	1:H3	7-K4	R870	1:M3	8-H0	T210	1:C3	2-Q2			
R762	1:H3	7-K4	R871	1:N3	8-H0	T610	1:L6	6-N2			
R763	1:H4	7-L4	R872	1:N4	8-H0						
R765	1:H3	7-H2	R873	1:N4	8-K0	TP201	1:D3	2-P8			
R766	1:G3	7-J3	R875	1:M4	8-J1	TP202	1:D7	2-D9			
R767	1:H3	7-K2	R876	1:M3	8-K1	TP309	1:E9	3-A5			
R769	1:H3	7-K3	R877	1:M2	8-K1	TP310	1:E7	3-E5			
R771	1:H4	7-L3	R878	1:M2	8-K0	TP311	1:E4	3-M6			
R772	1:G4	7-L2	R879	1:M2	8-K0	TP313	1:E4	3-J2			
R774	1:H4	7-L2	R881	1:M4	8-K2	TP314	1:E5	3-R5			
R775	1:H4	7-N2	R882	1:M4	8-L3	TP408	2:N8	4-B5			
R780	1:G2	7-P1	R884	1:M3	8-N3	TP409	2:L7	4-D5			
R782	1:G3	7-P0	R885	1:M3	8-N2	TP410	2:J8	4-J5			
R784	1:G3	7-P1	R886	1:M3	8-P3	TP411	2:H8	4-M5			
R785	1:G3	7-Q1	R887	1:M3	8-P3	TP412	1:G8	4-Q5			
R786	1:G2	7-R1	R888	1:M3	8-P2	TP601	1:N5	6-K9			
R787	1:G2	7-R1	R889	1:M3	8-M1	TP602	1:L6	6-R9			
R790	1:G3	7-P0	R890	1:M3	8-N1	TP603	1:L5	6-J2			
R791	1:G3	7-Q0	R891	1:M2	8-M1	TP604	1:L4	6-N6			
R804	1:J3	8-C7	R892	1:M2	8-N0	TP607	1:L4	6-F9			
R805	1:J3	8-C7	R894	1:M2	8-P0	TP710	1:H4	7-J5			

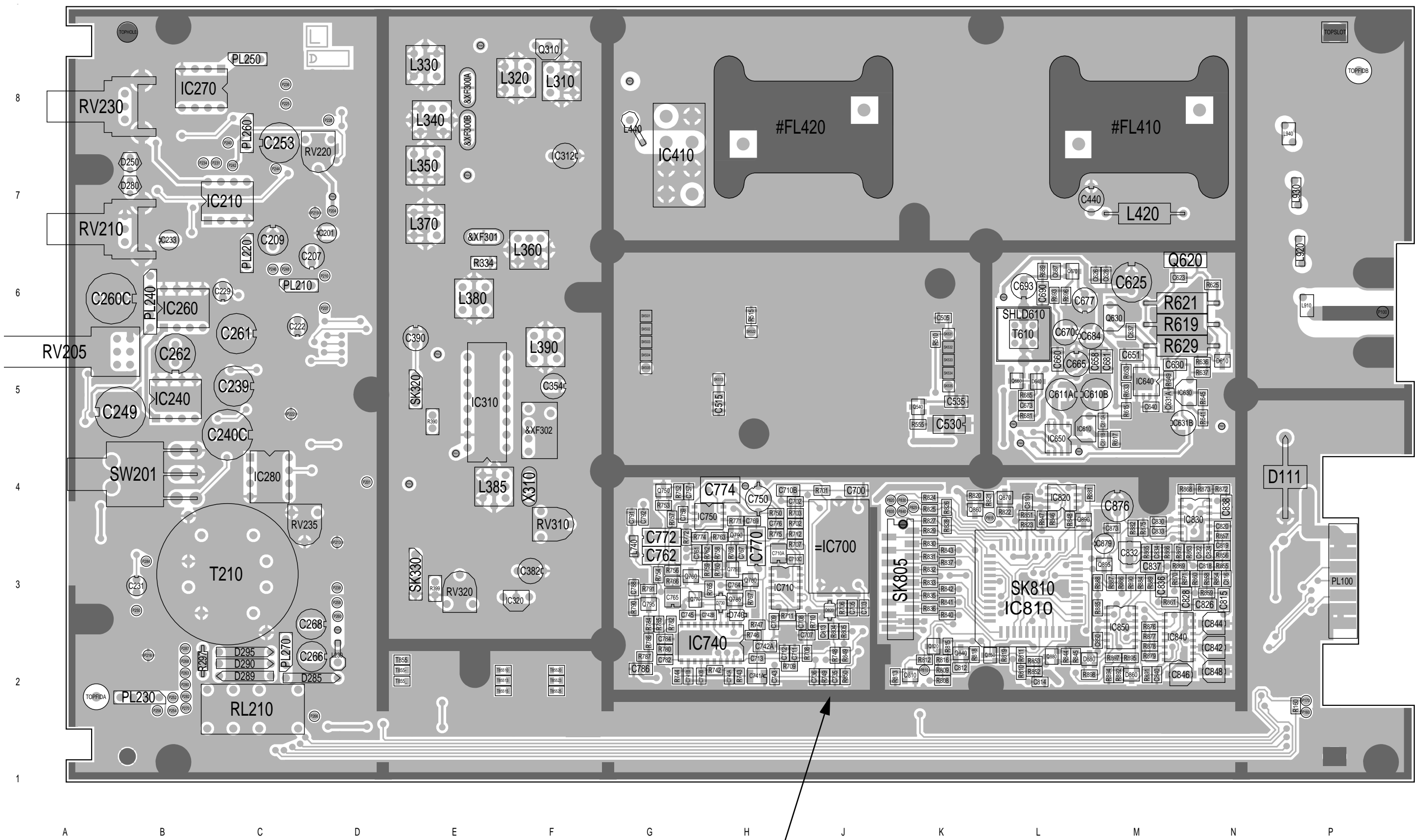


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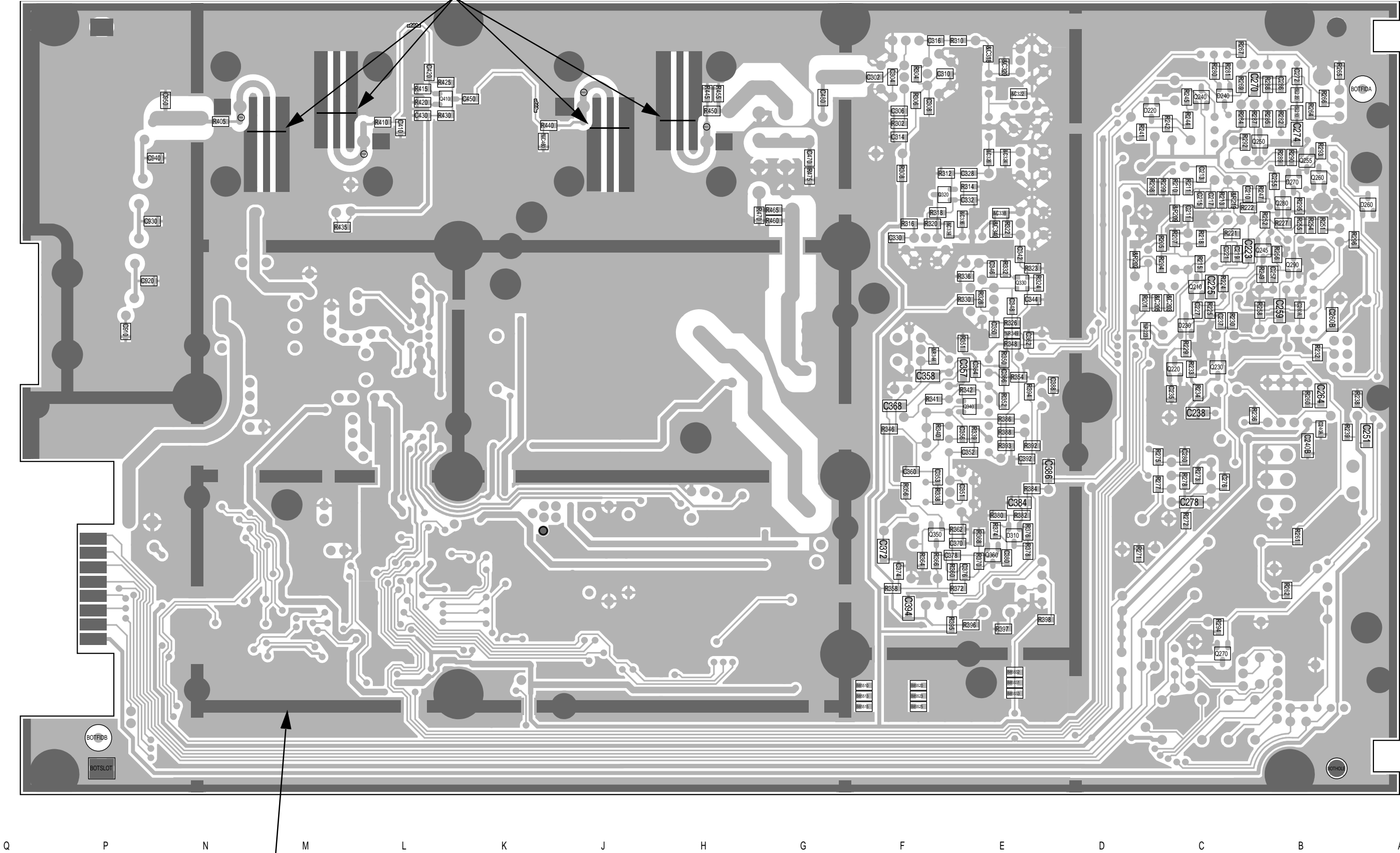
33
2

The upper number is the component identification number which appears in the "Legend" column of the Mechanical & Miscellaneous Parts on the facing page.

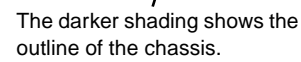
The lower number indicates how many of this component are used in this location or function.

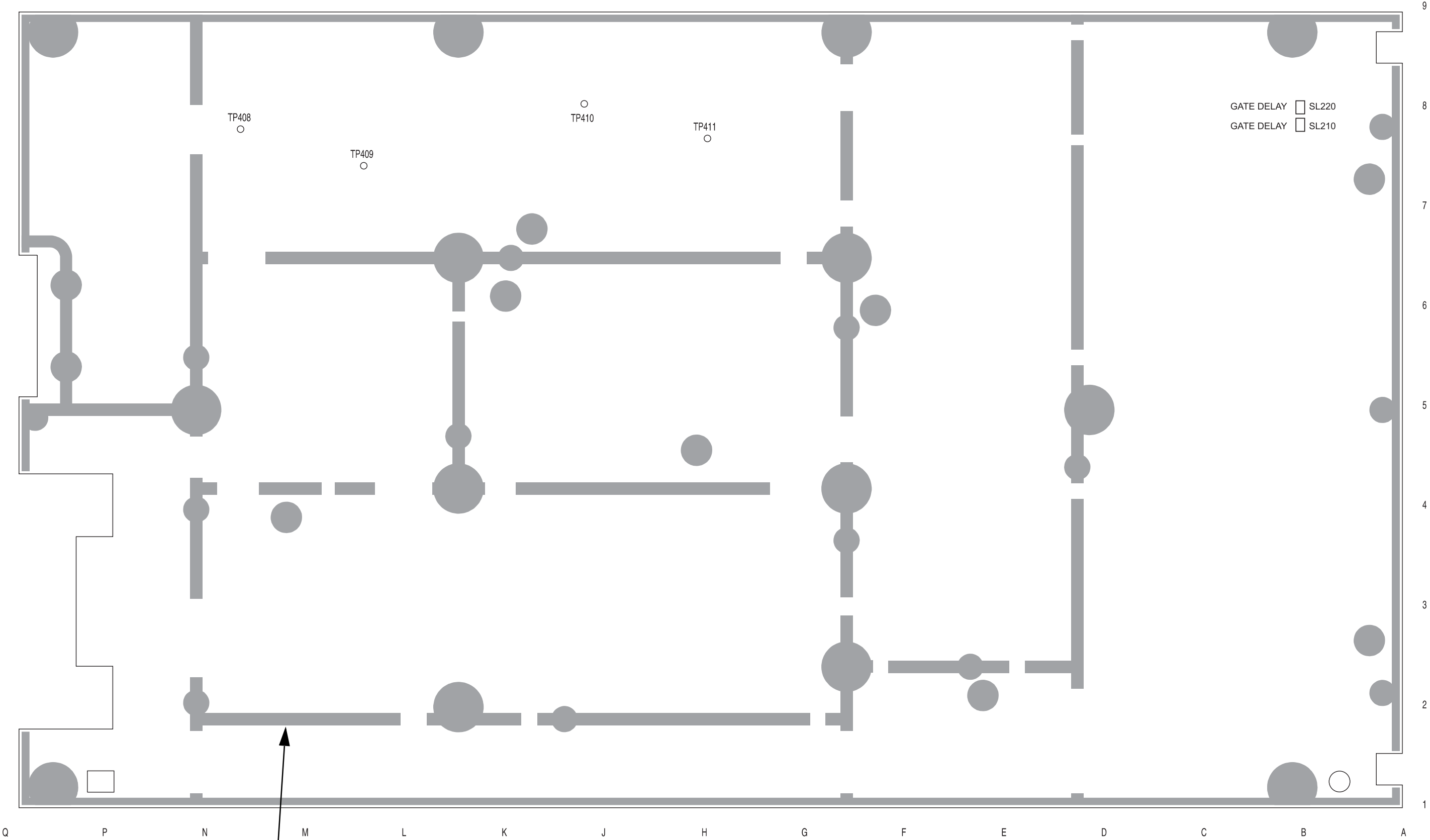


These link wires are positioned according to frequency range and should not be moved as their position is optimised in the factory.

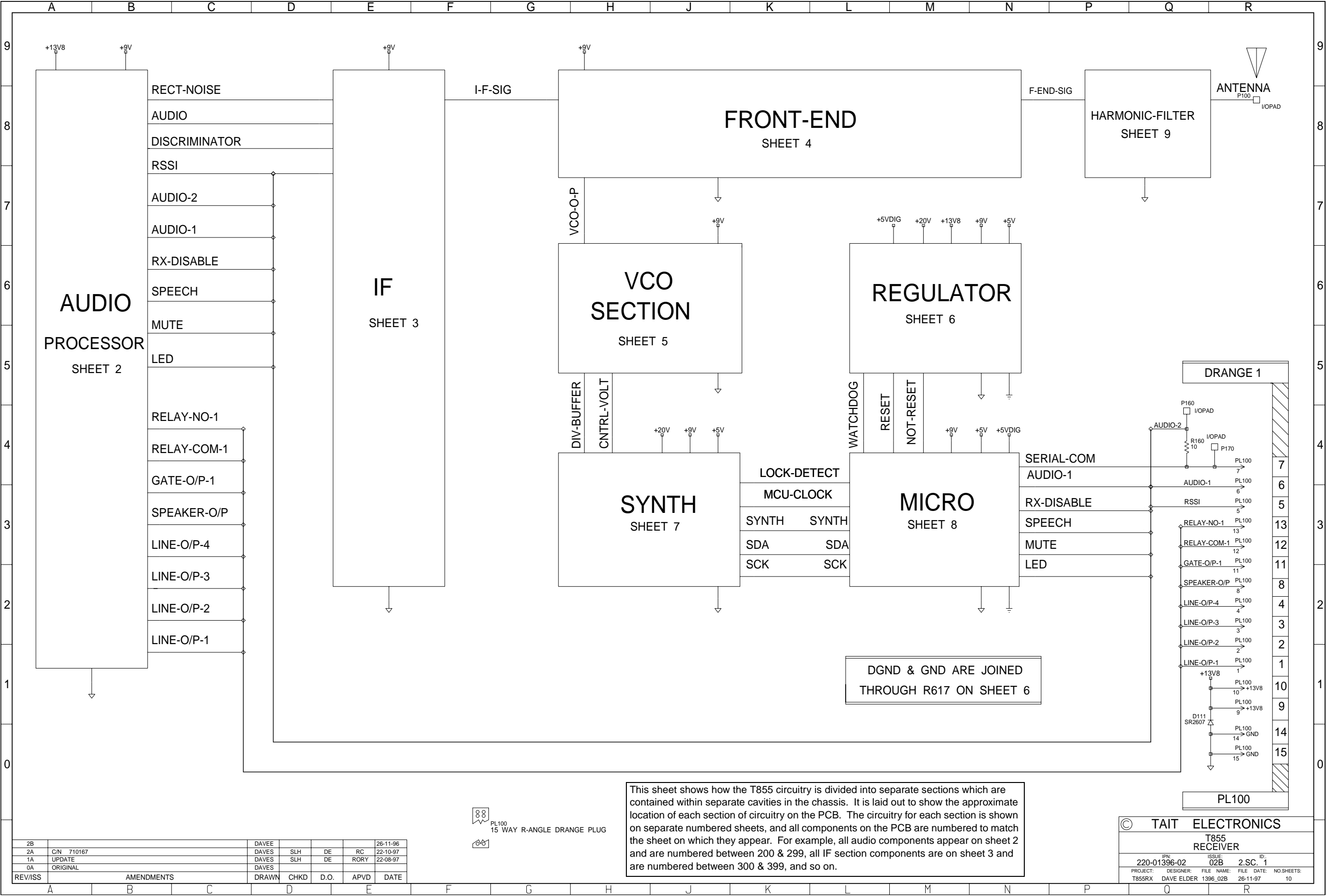


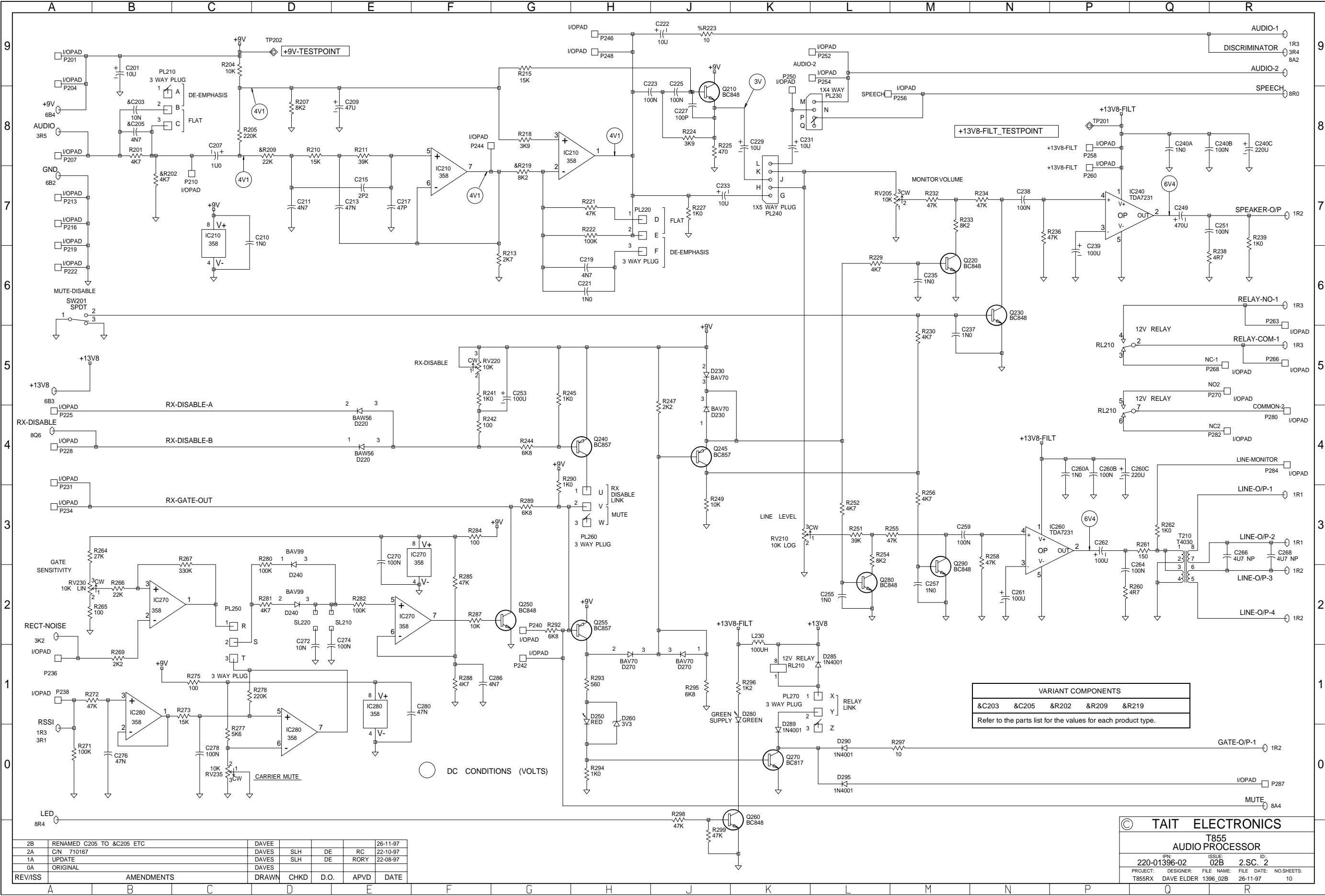
T855 PCB Layout - Bottom Side
220-01396-02

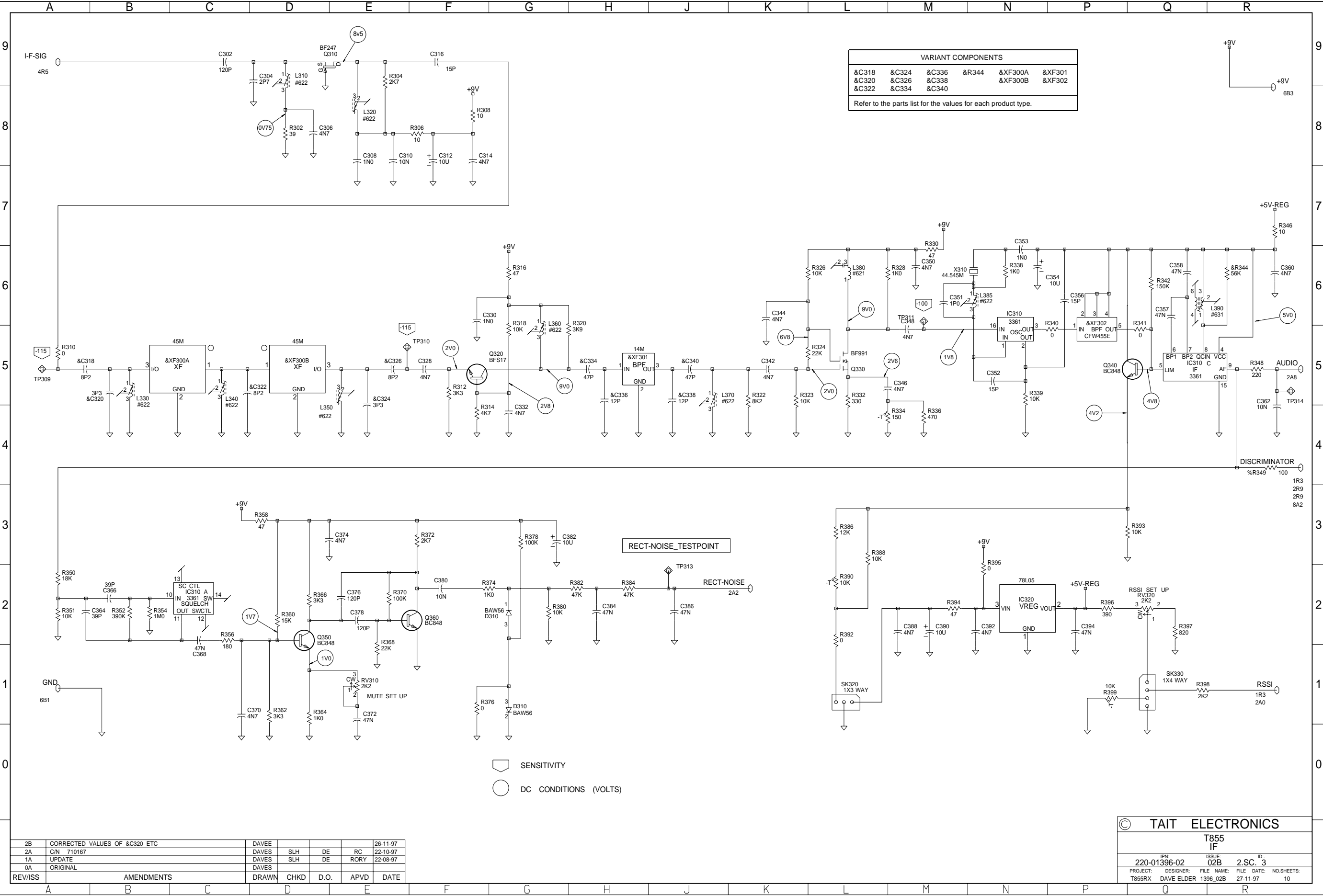




T855 Test Points & Options Connections - Bottom Side
220-01396-02

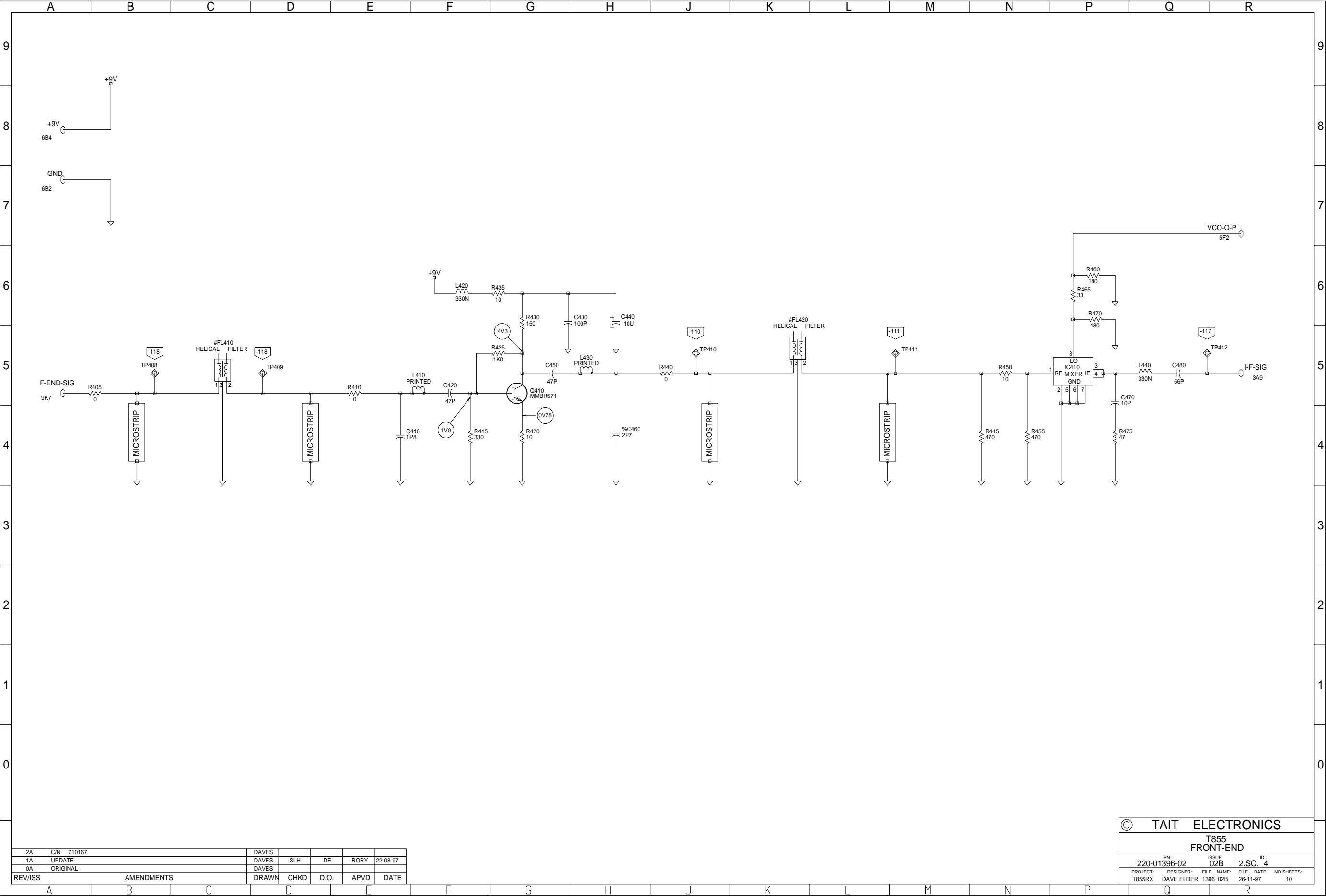






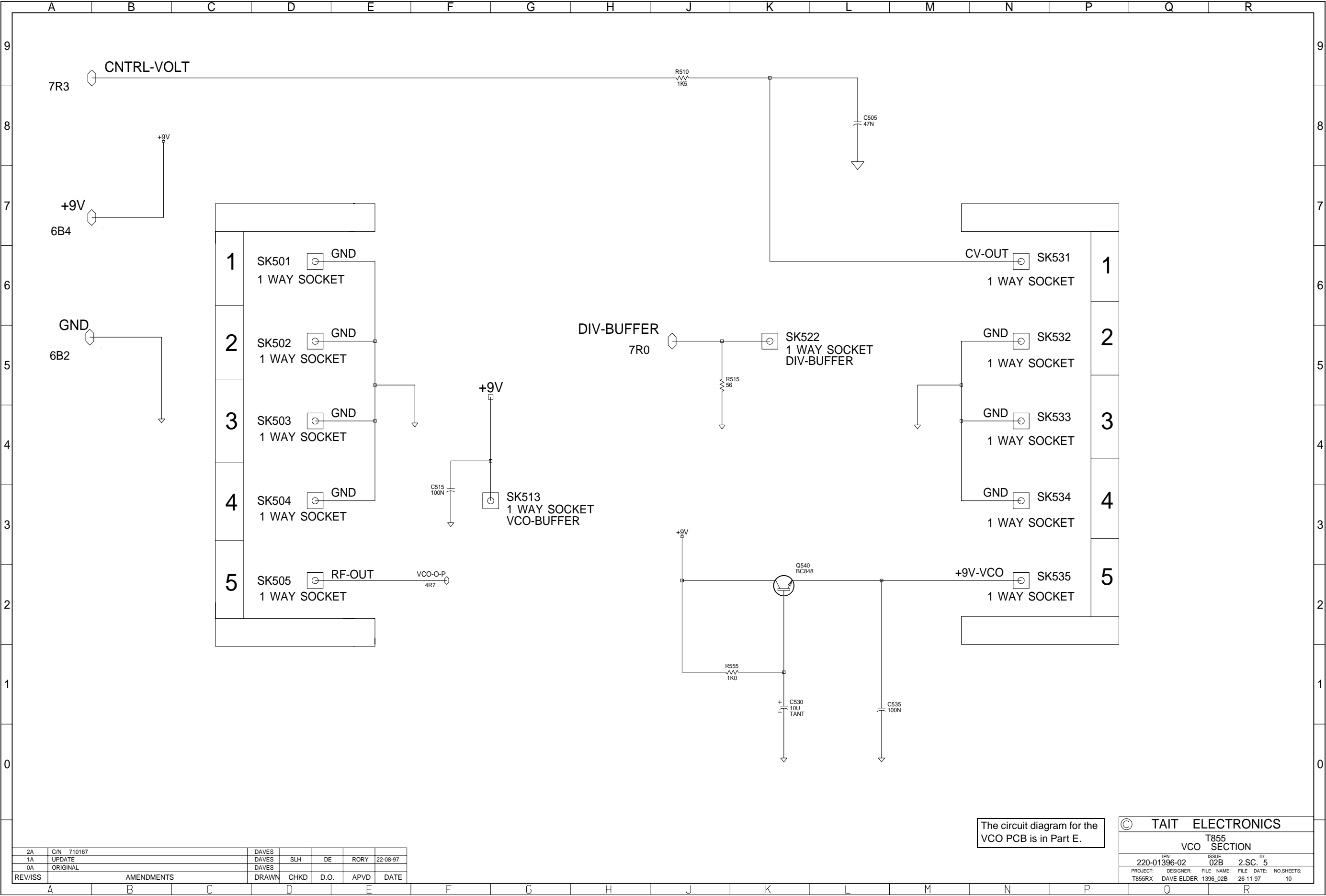
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2A	C/N 710167	DAVES	SLH	DE	RC 22-10-97
1A	UPDATE	DAVES	SLH	DE	RORY 22-08-97
0A	ORIGINAL	DAVES			
REV/ISS	AMENDMENTS	DRAWN	CHKD	D.O.	APVD DATE

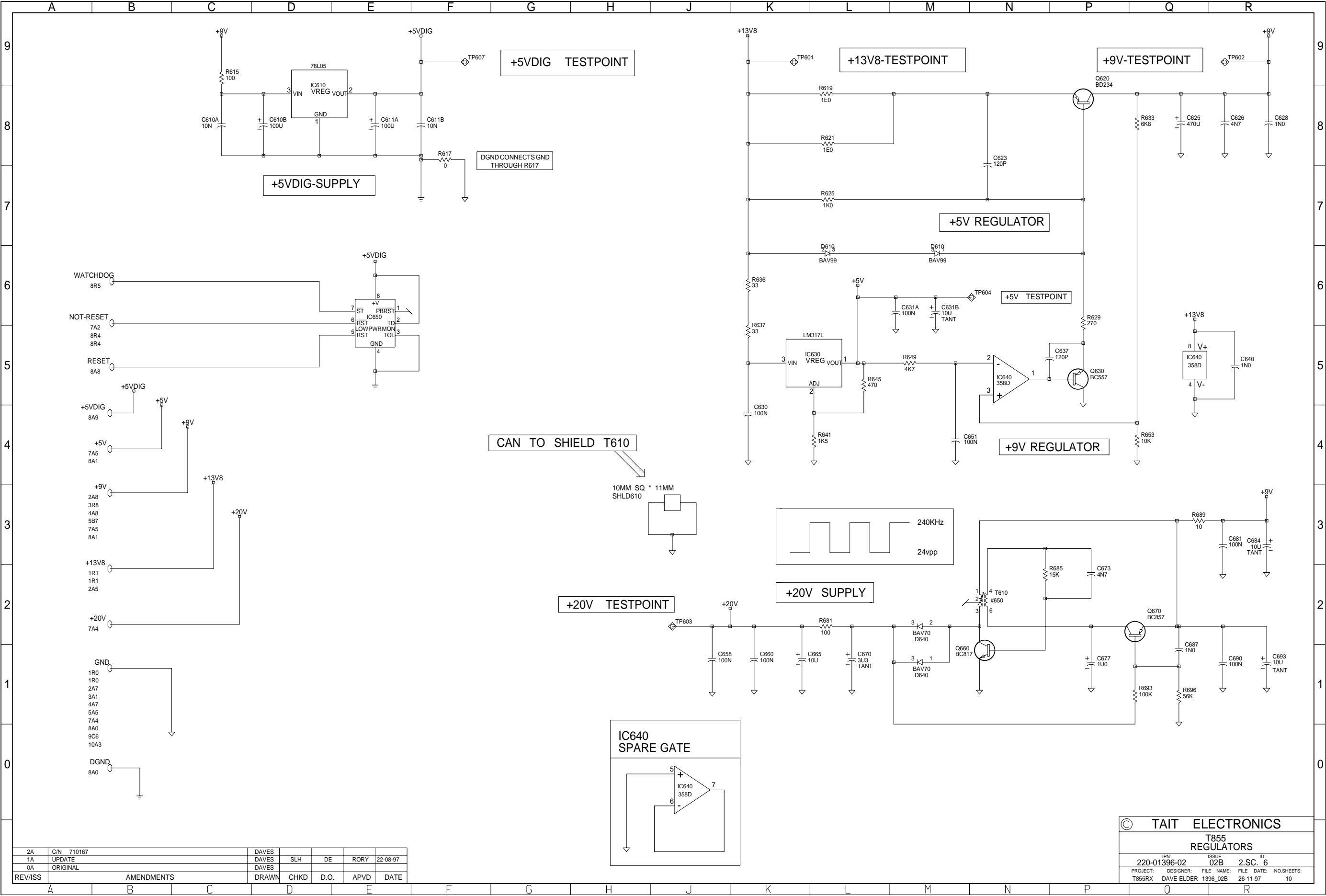
© TAIT ELECTRONICS			
T855 IF			
IPN:	ISSUE:	220-01396-02	02B 2.S.C. 3
PROJECT:	DESIGNER:	FILE NAME:	FILE DATE:
T855RX	DAVE ELDER	1396_02B	27-11-97
			NO SHEETS: 10

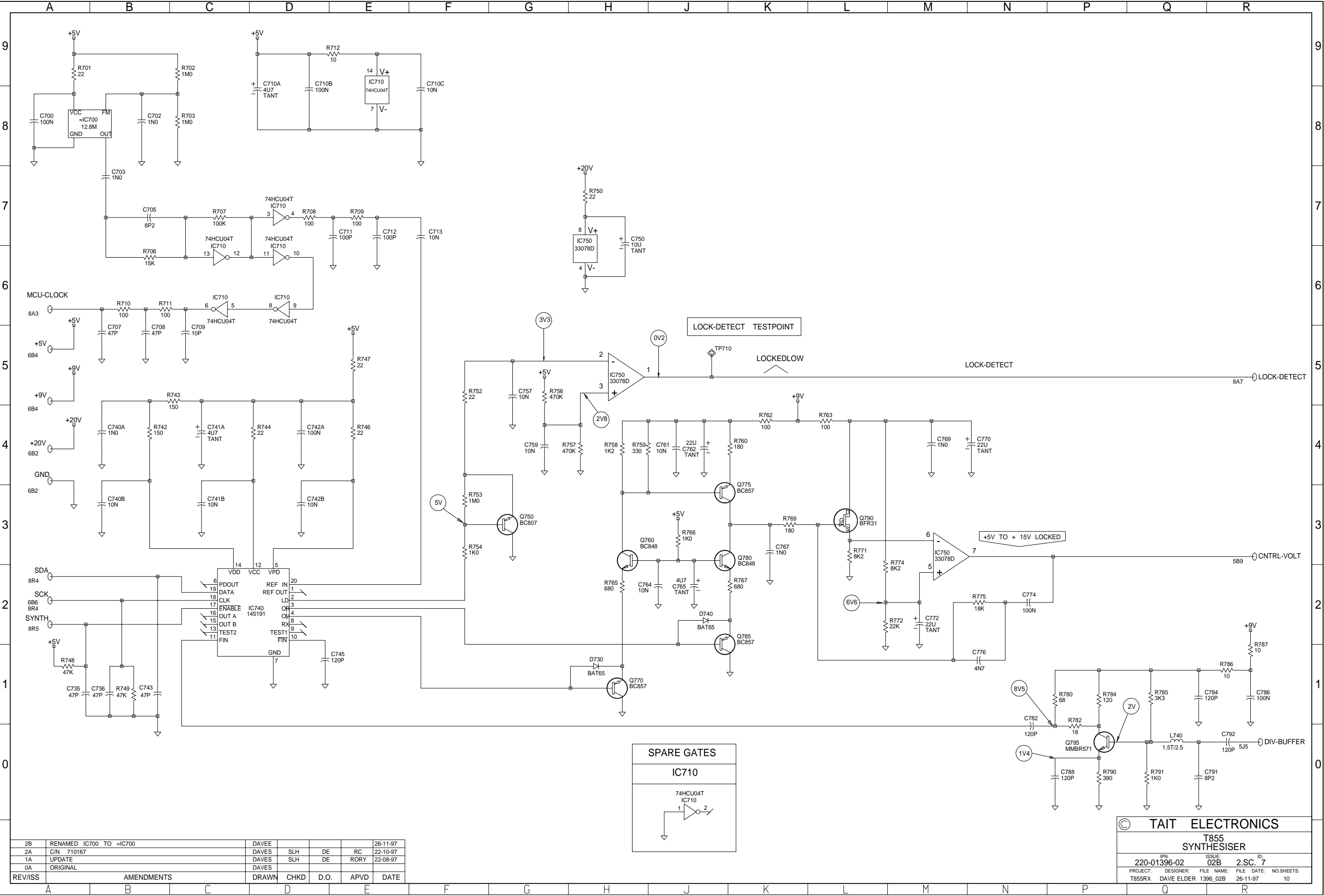


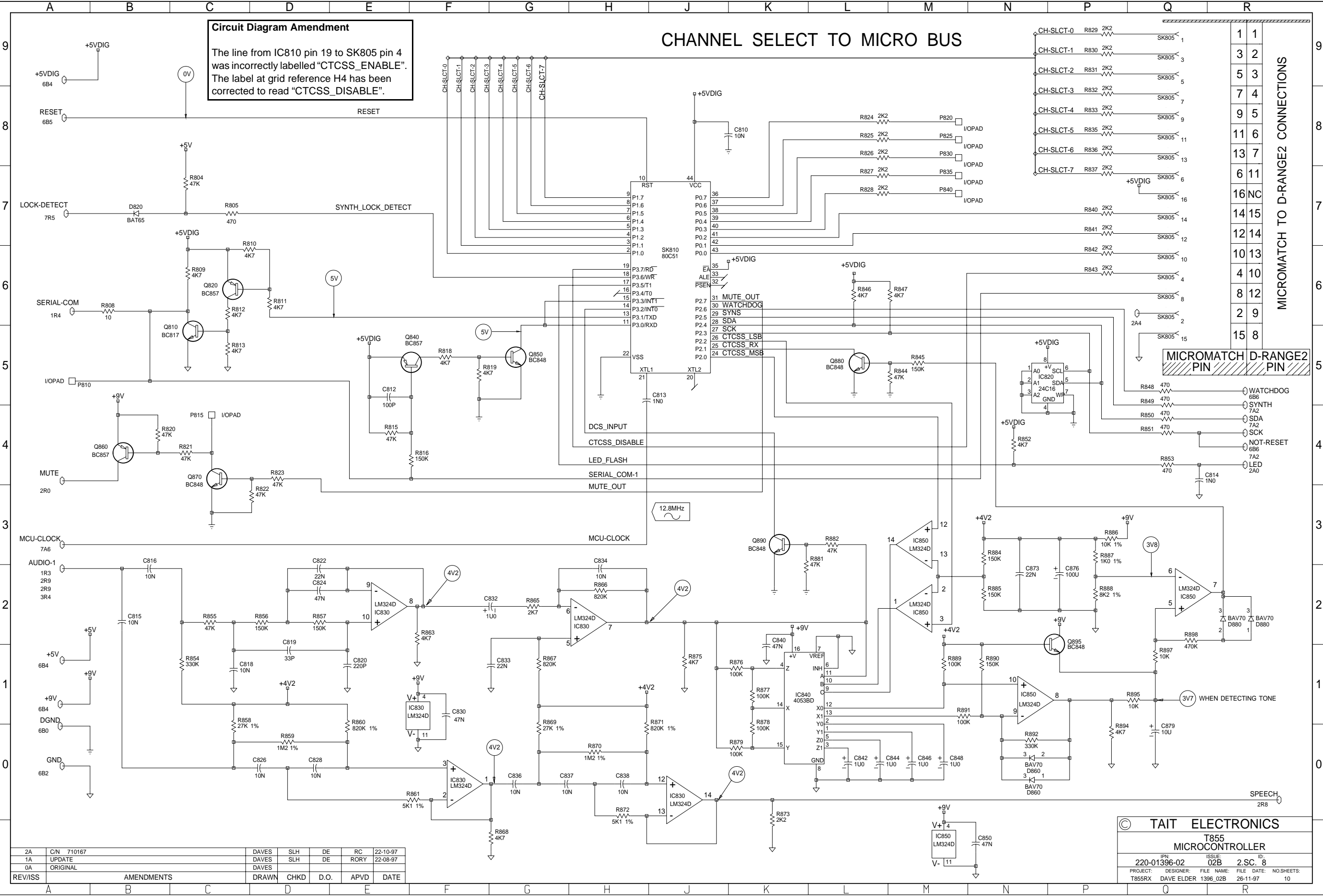
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1A	UPDATE	DAVES	SLH	DE	RORY	22-08-97
0A	ORIGINAL	DAVES				
REV/ISS	AMENDMENTS	DRAWN	CHKD	D.O.	APVD	DATE

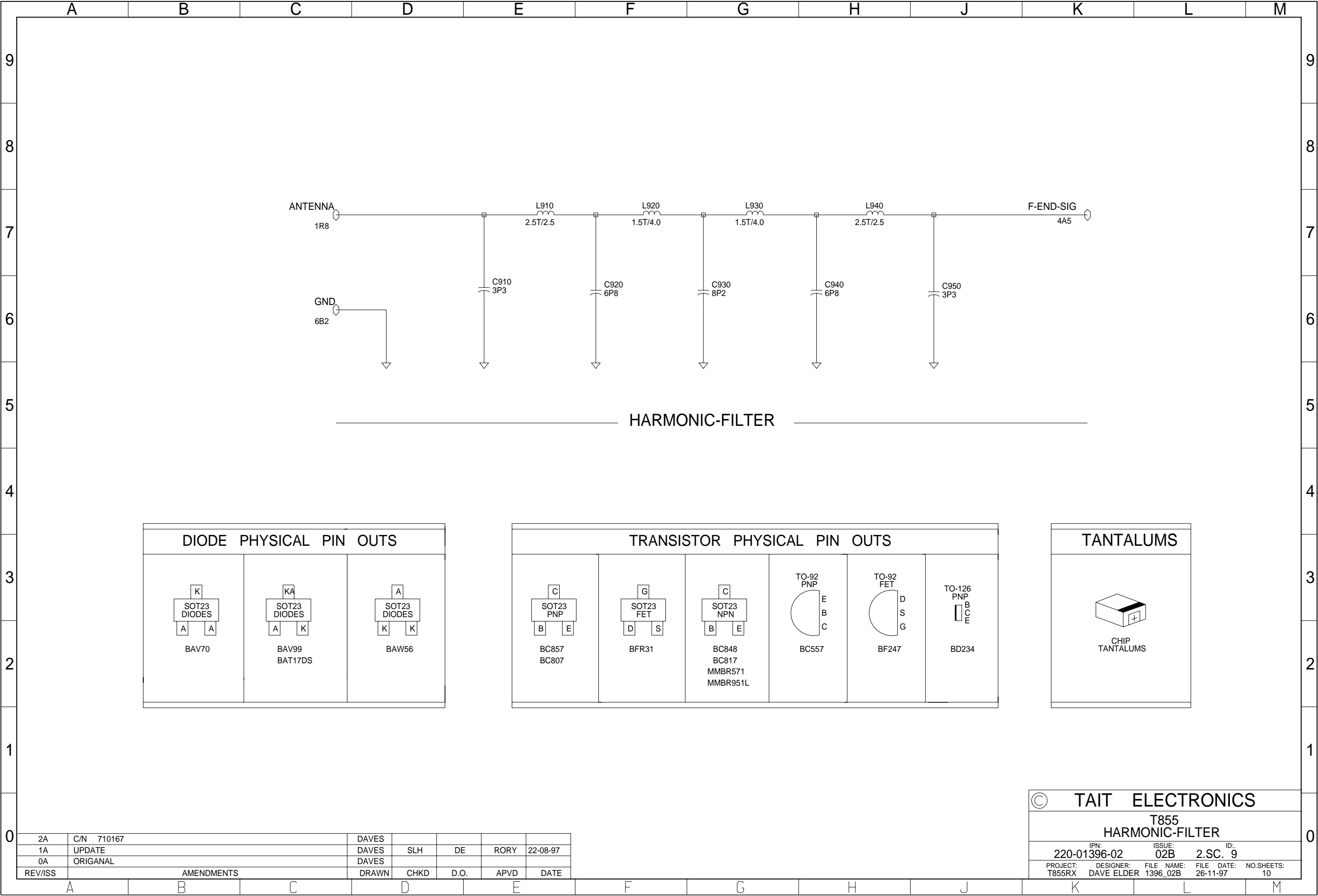
© TAIT ELECTRONICS					
T855 FRONT-END					
IPN	ISSUE	FILE	NAME	DATE	NO. SHEETS
220-01396-02	02B	2	SC. 4		
PROJECT:	DESIGNER:	FILE	NAME:	DATE:	NO. SHEETS:
T855RX	DAVE ELDER	1396_02B	26-11-97		10











TRANSISTOR PHYSICAL PIN OUTS

C

SOT23
PNP

B

E

BC857
BC807

G

SOT23
FET

D

S

BFR31

C

SOT23
NPN

B

E

BC848
BC817
MMBR571
MMBR951L

TO-92
PNP

E

B

C

BC557

TO-92
FET

D

S

G

BF247

TO-126
PNP

B

C

E

BD234

TANTALUMS

CHIP
TANTALUMS

2A	C/N 710167	DAVES				
1A	UPDATE	DAVES	SLH	DE	RORY	22-08-97
0A	ORIGANAL	DAVES				
REV/ISS	AMENDMENTS	DRAWN	CHKD	D.O.	APVD	DATE

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T855
HARMONIC-FILTER

IPN: 220-01396-02 ISSUE: 02B ID: 2.SC. 9

PROJECT: T855RX DESIGNER: DAVE ELDER FILE NAME: 1396_02B FILE DATE: 26-11-97 NO.SHEETS: 10

T855 Parts List (IPN 220-01396-03)

How To Use This Parts List

The components listed in this parts list are divided into two main types: those with a circuit reference (e.g. C2, D1, R121, etc.) and those without (miscellaneous and mechanical).

Those with a circuit reference are grouped in alphabetical order and then in numerical order within each group. Each component entry comprises three or four columns: the circuit reference, variant (if applicable), IPN and description. A number in the variant column indicates that this is a variant component which is fitted only to the product type listed. Static sensitive devices are indicated by an (S) at the start of the description column.

The miscellaneous and mechanical section lists the variant and common parts in IPN order. Where possible, a number in the legend column indicates their position in the mechanical assembly drawing.

The Parts List Amendments box below lists component changes that took place after the parts list and diagrams in this section were compiled. These changes (e.g. value changes, added/deleted components, etc.) are listed by circuit reference in alphanumeric order and supersede the information given in the parts list or diagrams. Components without circuit references are listed in IPN order.

Parts List Amendments

Capacitor IPN Change	The IPN of the 8p2 chip capacitors used in the T855 has been changed from 015-21820-01 to 015-21820-02. The components themselves have not changed (780047/48/49/50).		
D111	Changed from MR750 (IPN 001-00011-60) to MR2520L (IPN 001-00012-90) to provide overvoltage transient suppression (750087/88/89/90/91/92).		
#FL410, #FL420	Two metal shields (IPN 319-01231-00) were added on the bottom side of the PCB to cover the helical pins to improve spurious response (710988).		
Q310	Changed from BF247A (IPN 000-50020-18) to J310 (IPN 000-00033-10) as BF247A obsolete (710889).		
Q540	Changed from BCW60 (IPN 000-10008-48) to BC817-25 (IPN 000-10008-17) as BCW60 is underrated (711093).		
R302	Changed from 39Ω (IPN 036-12390-00) to 100Ω (IPN 036-13100-00) when Q310 changed to J310 (710889).		
R306	Changed from 10Ω (IPN 036-12100-00) to 39Ω (IPN 036-12390-00) when Q310 changed to J310 (710889).		
070-02001-00	Red front panel LED: replaced by 008-00014-79 (see D250) (710928).		
070-02002-00	Green front panel LED: replaced by 008-00014-80 (see D280) (710928).		
303-11169-03	T800 chassis: replaced by 303-11169-04	}	New chassis and lid tooling introduced, incorporating mechanical improvements and better RF shielding (750027, 750028 & 750029). Note that the new lids should be used only with the new chassis.
312-01052-01	T800 top lid: replaced by 312-01052-02		
312-01053-01	T800 bottom lid: replaced by 312-01053-02		
349-00020-36	The two M3x8 Torx screws which secure the module into the rack frame have been replaced by M3x8 Pozidriv screws (IPN 349-00020-55) (750101/2/3/5/6).		

Ref	Var	IPN	Description	Ref	Var	IPN	Description
C201		020-08100-04	CAP ELE RA 10M 16V 4X7MM	&C324	30	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V
&C203	10	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C324	35	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V
&C203	13	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C326	10	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C203	15	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C326	13	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C203	20	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C326	15	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C203	23	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C326	20	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C203	25	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C326	23	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C203	30	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C326	25	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C203	35	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C326	30	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C205	10	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C326	35	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V
&C205	13	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	C328		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
&C205	15	015-25100-08	CAP CER 0805 10N 10% X7R 50V	C330		015-24100-08	CAP CER 0805 1N 10% X7R 50V
&C205	20	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	C331		015-21220-01	CAP CER 0805 2P2+-1/4P NPO 50V
&C205	23	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	C332		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
&C205	25	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C334	10	015-22470-01	CAP CER 0805 47P 5% NPO 50V
&C205	30	015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C334	13	015-22470-01	CAP CER 0805 47P 5% NPO 50V
&C205	35	015-25100-08	CAP CER 0805 10N 10% X7R 50V	&C334	15	015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C207		020-07100-02	CAP ELE RA 1M 50V 5X11MM	&C334	20	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C209		020-08470-02	CAP ELE RA 47M 16V 6X11MM	&C334	23	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C210		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C334	25	015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C211		015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C334	30	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C213		015-25470-08	CAP CER 0805 47N 10% X7R 50V	&C334	35	015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C215		015-21220-01	CAP CER 0805 2P2+-1/4P NPO 50V	&C336	10	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C217		015-22470-01	CAP CER 0805 47P 5% NPO 50V	&C336	13	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C219		015-24470-08	CAP CER 0805 4N7 10% X7R 50V	&C336	15	015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V
C221		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C336	20	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C222		020-08100-04	CAP ELE RA 10M 16V 4X7MM	&C336	23	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C223		015-06100-08	CAP CER 1206 100N 10% X7R 50V	&C336	25	015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V
C225		015-06100-08	CAP CER 1206 100N 10% X7R 50V	&C336	30	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C227		015-23100-01	CAP CER 0805 100P 5% NPO 50V	&C336	35	015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V
C229		020-08100-04	CAP ELE RA 10M 16V 4X7MM	&C338	10	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C231		020-08100-04	CAP ELE RA 10M 16V 4X7MM	&C338	13	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C233		020-08100-04	CAP ELE RA 10M 16V 4X7MM	&C338	15	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C235		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C338	20	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C237		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C338	23	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C238		015-06100-08	CAP CER 1206 100N 10% X7R 50V	&C338	25	015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V
C239		020-09100-03	CAP ELE RA 100M 16V 8X11MM	&C338	30	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C240A		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C338	35	015-22120-01	CAP CER 0805 12P 5% NPO 50V
C240B		015-06100-08	CAP CER 1206 100N 10% X7R 50V	&C340	10	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C240C		020-09220-01	CAP ELE RA 220M 16V 10X12.5MM	&C340	13	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C249		020-09470-05	CAP ELE RAD 470M 16V 10X12.5MM	&C340	15	015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C251		015-06100-08	CAP CER 1206 100N 10% X7R 50V	&C340	20	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C253		020-09100-03	CAP ELE RA 100M 16V 8X11MM	&C340	23	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C255		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C340	25	015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C257		015-24100-08	CAP CER 0805 1N 10% X7R 50V	&C340	30	015-22470-01	CAP CER 0805 47P 5% NPO 50V
C259		015-06100-08	CAP CER 1206 100N 10% X7R 50V	&C340	35	015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C260A		015-24100-08	CAP CER 0805 1N 10% X7R 50V	C342		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C260B		015-06100-08	CAP CER 1206 100N 10% X7R 50V	C344		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C260C		020-09220-01	CAP ELE RA 220M 16V 10X12.5MM	C346		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C261		020-09100-03	CAP ELE RA 100M 16V 8X11MM	C347		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C262		020-09100-03	CAP ELE RA 100M 16V 8X11MM	C348		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C264		015-06100-08	CAP CER 1206 100N 10% X7R 50V	C349		015-21270-01	CAP CER 0805 2P7+-1/4P NPO 50V
C266		020-07470-91	CAP ELE RA 4M7 63V 6X11MM BI-P	C350		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C268		020-07470-91	CAP ELE RA 4M7 63V 6X11MM BI-P	C352		015-22270-01	CAP CER 0805 2P7 5% NPO 50V
C270		015-06100-08	CAP CER 1206 100N 10% X7R 50V	C354		025-08100-04	(L) CAP10M 35V 10%TANT2.5L/S
C272		015-25100-08	CAP CER 0805 10N 10% X7R 50V	C355		025-08100-04	(L) CAP10M 35V 10%TANT2.5L/S
C274		015-06100-08	CAP CER 1206 100N 10% X7R 50V	C356		015-22120-01	CAP CER 0805 12P 5% NPO 50V
C276		015-25470-08	CAP CER 0805 47N 10% X7R 50V	C357		015-25100-08	CAP CER 0805 10N 10% X7R 50V
C278		015-06100-08	CAP CER 1206 100N 10% X7R 50V	C358		015-25470-08	CAP CER 0805 47N 10% X7R 50V
C280		015-25470-08	CAP CER 0805 47N 10% X7R 50V	C359		025-08100-04	(L) CAP10M 35V 10%TANT2.5L/S
C286		015-24470-08	CAP CER 0805 4N7 10% X7R 50V	C360		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
C302		015-23100-01	CAP CER 0805 100P 5% NPO 50V	C361		015-26100-08	CAP CER 0805 100N 10% X7R 50V
C306		015-24470-08	CAP CER 0805 4N7 10% X7R 50V	C362		015-25100-08	CAP CER 0805 10N 10% X7R 50V
C308		015-24100-08	CAP CER 0805 1N 10% X7R 50V	C364		015-22390-01	CAP CER 0805 3P9 5% NPO 50V
C310		015-25100-08	CAP CER 0805 10N 10% X7R 50V	C366		015-22390-01	CAP CER 0805 3P9 5% NPO 50V
C312		020-58100-03	CAP ELE AI RDL 10M 50V 5X11MM	C367		015-25100-08	CAP CER 0805 10N 10% X7R 50V
C314		015-24470-08	CAP CER 0805 4N7 10% X7R 50V	C368		015-05470-08	CAP CER 1206 47N 10% X7R 50V
C316		015-22150-01	CAP CER 0805 15P 5% NPO 50V	C370		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
&C318	10	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C372		015-05470-08	CAP CER 1206 47N 10% X7R 50V
&C318	13	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C374		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
&C318	15	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C376		015-23120-01	CAP CER 0805 120P 5% NPO 50V
&C318	20	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C378		015-23120-01	CAP CER 0805 120P 5% NPO 50V
&C318	23	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C380		015-25100-08	CAP CER 0805 10N 10% X7R 50V
&C318	25	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C382		020-58100-03	CAP ELE AI RDL 10M 50V 5X11MM
&C318	30	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C384		015-05470-08	CAP CER 1206 47N 10% X7R 50V
&C318	35	015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	C386		015-05470-08	CAP CER 1206 47N 10% X7R 50V
&C320	10	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C388		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
&C320	13	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C390		025-08100-02	CAP TANT BEAD 10M 10% 16V
&C320	15	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C392		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
&C320	20	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C394		015-05470-08	CAP CER 1206 47N 10% X7R 50V
&C320	23	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C410		015-21180-01	CAP CER 0805 1P8+-1/4P NPO 50V
&C320	25	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C420		015-22470-01	CAP CER 0805 47P 5% NPO 50V
&C320	30	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C430		015-23100-01	CAP CER 0805 100P 5% NPO 50V
&C320	35	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C440		020-58100-03	CAP ELE AI RDL 10M 50V 5X11MM
&C322	10	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C450		015-22470-01	CAP CER 0805 47P 5% NPO 50V
&C322	13	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C470		015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V
&C322	15	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C480		015-22560-01	CAP CER 0805 56P 5% NPO 50V
&C322	20	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C505		015-06100-08	CAP CER 1206 100N 10% X7R 50V
&C322	23	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C515		015-06100-08	CAP CER 1206 100N 10% X7R 50V
&C322	25	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C530		014-08220-01	(L)CAP TANT 22UF10V276MSER
&C322	30	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C535		015-06100-08	CAP CER 1206 100N 10% X7R 50V
&C322	35	015-22150-01	CAP CER 0805 15P 5% NPO 50V	C610A		015-25100-08	CAP CER 0805 10N 10% X7R 50V
&C324	10	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C610B		020-09100-04	CAP ELE RA 100M 10V 6.3X9MM
&C324	13	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C611A		020-09100-04	CAP ELE RA 100M 10V 6.3X9MM
&C324	15	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C611B		015-25100-08	CAP CER 0805 10N 10% X7R 50V
&C324	20	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C623		015-23120-01	CAP CER 0805 120P 5% NPO 50V
&C324	23	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C625		020-09470-07	CAPEL470M16V20%V 8*20 3.5L.ESR
&C324	25	015-21390-01	CAP CER 0805 3P9+-1/4P NPO 50V	C626		015-24470-08	CAP CER 0805 4N7 10% X7R 50V

Ref	Var	IPN	Description	Ref	Var	IPN	Description
C628		015-24100-08	CAP CER 0805 1N 10% X7R 50V	D240		001-10000-99	S) DIODE SMD BAV99 D-SW SOT23
C630		015-06100-08	CAP CER 1206 100N 10% X7R 50V	D250		008-00014-79	S)LED 3MM RED WITH WIRE
C631A		015-06100-08	CAP CER 1206 100N 10% X7R 50V	D260		001-10084-33	S)DIODE ZENSMD BZX84C3V3 SOT23
C631B		025-08100-02	CAP TANT BEAD 10M 10% 16V	D270		001-10000-70	S) DIODE SMD BAV70 D-SW SOT23
C637		015-23120-01	CAP CER 0805 120P 5% NPO 50V	D280		008-00014-80	S)LED 3MM GREEN WITH WIRE
C640		015-24100-08	CAP CER 0805 1N 10% X7R 50V	D285		001-00011-70	S) DIODE 1N4001 1A/50V
C651		015-06100-08	CAP CER 1206 100N 10% X7R 50V	D289		001-00011-70	S) DIODE 1N4001 1A/50V
C658		015-06100-08	CAP CER 1206 100N 10% X7R 50V	D290		001-00011-70	S) DIODE 1N4001 1A/50V
C660		015-06100-08	CAP CER 1206 100N 10% X7R 50V	D295		001-00011-70	S) DIODE 1N4001 1A/50V
C665		020-58100-03	CAP ELE AI RDL 10M 50V 5X11MM	D310		001-10000-56	S) DIODE SMD BAW56 D-SW SOT23
C670		025-07330-01	CAP TANT BEAD 3M3 35V	D350		001-10000-17	S) DIODE SMD DUAL BAT-17 SOT23
C673		015-24470-08	CAP CER 0805 4N7 10% X7R 50V	D610		001-10000-99	S) DIODE SMD BAV99 D-SW SOT23
C677		020-07100-02	CAP ELE RA 1M 50V 5X11MM	D640		001-10000-70	S) DIODE SMD BAV70 D-SW SOT23
C681		015-06100-08	CAP CER 1206 100N 10% X7R 50V	D730		001-10065-00	DIODE SHTKY SOD123 BAT65 BAT54
C684		025-08100-02	CAP TANT BEAD 10M 10% 16V	D740		001-10065-00	DIODE SHTKY SOD123 BAT65 BAT54
C687		015-24100-08	CAP CER 0805 1N 10% X7R 50V	D820		001-10065-00	DIODE SHTKY SOD123 BAT65 BAT54
C690		015-06100-08	CAP CER 1206 100N 10% X7R 50V	D860		001-10000-70	S) DIODE SMD BAV70 D-SW SOT23
C693		025-08100-02	CAP TANT BEAD 10M 10% 16V	D880		001-10000-70	S) DIODE SMD BAV70 D-SW SOT23
C700		015-06100-08	CAP CER 1206 100N 10% X7R 50V				
C702		015-24100-08	CAP CER 0805 1N 10% X7R 50V	#FL410 10	051-00576-00	COIL HELIC 400-440MHz T855SII	
C703		015-24100-08	CAP CER 0805 1N 10% X7R 50V	#FL410 13	051-00576-00	COIL HELIC 400-440MHz T855SII	
C705		015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	#FL410 15	051-00576-00	COIL HELIC 400-440MHz T855SII	
C707		015-22470-01	CAP CER 0805 47P 5% NPO 50V	#FL410 20	051-00577-00	COIL HELIC 440-480MHz T855SII	
C708		015-22470-01	CAP CER 0805 47P 5% NPO 50V	#FL410 23	051-00577-00	COIL HELIC 440-480MHz T855SII	
C709		015-22100-01	CAP CER 0805 10P+-1/2P NPO 50V	#FL410 25	051-00577-00	COIL HELIC 440-480MHz T855SII	
C710A		014-07470-00	CAP TANT CHIP 4U7 3.5 X 2.8MM	#FL410 30	051-00578-00	COIL HELIC 480-530MHz T855SII	
C710B		015-06100-08	CAP CER 1206 100N 10% X7R 50V	#FL410 35	051-00578-00	COIL HELIC 480-530MHz T855SII	
C710C		015-25100-08	CAP CER 0805 10N 10% X7R 50V	#FL420 10	051-00576-00	COIL HELIC 400-440MHz T855SII	
C711		015-22220-01	CAP CER 0805 22P 5% NPO 50V	#FL420 13	051-00576-00	COIL HELIC 400-440MHz T855SII	
C712		015-22220-01	CAP CER 0805 22P 5% NPO 50V	#FL420 15	051-00576-00	COIL HELIC 400-440MHz T855SII	
C713		015-25100-08	CAP CER 0805 10N 10% X7R 50V	#FL420 20	051-00577-00	COIL HELIC 440-480MHz T855SII	
C735		015-22470-01	CAP CER 0805 47P 5% NPO 50V	#FL420 23	051-00577-00	COIL HELIC 440-480MHz T855SII	
C736		015-22470-01	CAP CER 0805 47P 5% NPO 50V	#FL420 25	051-00577-00	COIL HELIC 440-480MHz T855SII	
C740A		015-24100-08	CAP CER 0805 1N 10% X7R 50V	#FL420 30	051-00578-00	COIL HELIC 480-530MHz T855SII	
C740B		015-25100-08	CAP CER 0805 10N 10% X7R 50V	#FL420 35	051-00578-00	COIL HELIC 480-530MHz T855SII	
C741A		014-07470-00	CAP TANT CHIP 4U7 3.5 X 2.8MM				
C741B		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC210	002-00012-40	S) IC 358 DUAL O-AMP	
C742A		015-06100-08	CAP CER 1206 100N 10% X7R 50V	IC240	002-00014-05	S) IC TDA7231 1.6W AF PWR	
C742B		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC260	002-00014-05	S) IC TDA7231 1.6W AF PWR	
C743		015-22470-01	CAP CER 0805 47P 5% NPO 50V	IC270	002-00012-40	S) IC 358 DUAL O-AMP	
C745		015-23120-01	CAP CER 0805 120P 5% NPO 50V	IC280	002-00012-40	S) IC 358 DUAL O-AMP	
C750		025-08100-03	CAP 10M 35V 20% TANT 5MM L/S	IC310	002-00014-73	S) IC MC3361CP IF AMP	
C757		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC320	002-00014-58	S) IC 78L05 5V 100MA REG TO92	
C759		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC410	002-00022-01	S)MIXER DBLE TAK BLNCD2-750MHZ	
C761		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC610	002-00014-58	S) IC 78L05 5V 100MA REG TO92	
C762		014-08220-01	(L)CAP TANT 22UF10V276MSER	IC630	002-00014-62	S) IC 317L 100MA REG 3TER TO92	
C764		015-25100-08	CAP CER 0805 10N 10% X7R 50V	IC640	002-10003-58	S) IC SMD LM358 DUAL O-AMP	
C765		014-07470-00	CAP TANT CHIP 4U7 3.5 X 2.8MM	IC650	002-10012-32	SMD DS1232LPS-2 LP RESET&W-DOG	
C767		015-24100-08	CAP CER 0805 1N 10% X7R 50V	=IC700	539-00010-50	TCXO 12.8MHZ +-1PPM -20 +70C	
C769		015-24100-08	CAP CER 0805 1N 10% X7R 50V	IC710	002-74900-04	S) IC SMD 74HC04D 6X INV BUFFD	
C770		014-08220-01	(L)CAP TANT 22UF10V276MSER	IC740	002-14519-10	S) IC MC145191F SMD SYNTH	
C772		014-08220-01	(L)CAP TANT 22UF10V276MSER	IC750	002-10330-78	S) IC MC33078D 2X AMP LO NOISE	
C774		022-06100-16	CAP METAL POLY 100N +-10% 100V	IC810	002-08951-20	S) IC AT89C51 PLCC44 MIC 12MHZ	
C776		015-24680-08	CAP CER 0805 6N8 10% X7R 50V	IC820	002-12416-00	S)IC SMD AT24C16N-10SC EEPROM	
C782		015-23120-01	CAP CER 0805 120P 5% NPO 50V	IC830	002-10003-24	S) IC SMD 324 4X O-AMP SO14	
C784		015-23120-01	CAP CER 0805 120P 5% NPO 50V	IC840	002-10040-53	S)MC14053B SMD BREAK B4 MAKE	
C786		015-06100-08	CAP CER 1206 100N 10% X7R 50V	IC850	002-10003-24	S) IC SMD 324 4X O-AMP SO14	
C788		015-23120-01	CAP CER 0805 120P 5% NPO 50V				
C791		015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	L230	056-00021-02	IND FXD 100UH AX	
C792		015-23120-01	CAP CER 0805 120P 5% NPO 50V	L310	050-00016-22	COIL TAIT NO 622 20-120M	
C810		015-25100-08	CAP CER 0805 10N 10% X7R 50V	L320	050-00016-22	COIL TAIT NO 622 20-120M	
C812		015-23100-01	CAP CER 0805 100P 5% NPO 50V	L330	050-00016-22	COIL TAIT NO 622 20-120M	
C813		015-24100-08	CAP CER 0805 1N 10% X7R 50V	L340	050-00016-22	COIL TAIT NO 622 20-120M	
C814		015-24100-08	CAP CER 0805 1N 10% X7R 50V	L350	050-00016-22	COIL TAIT NO 622 20-120M	
C815		015-05100-07	CAP 1206 CHIP NPO 10nF 25V	L360	050-00016-22	COIL TAIT NO 622 20-120M	
C816		015-25100-08	CAP CER 0805 10N 10% X7R 50V	L370	050-00016-22	COIL TAIT NO 622 20-120M	
C818		015-25100-08	CAP CER 0805 10N 10% X7R 50V	L380	050-00016-22	COIL TAIT NO 622 20-120M	
C819		015-22330-01	CAP CER 0805 33P 5% NPO 50V	L385	050-00016-22	COIL TAIT NO 622 20-120M	
C820		015-23220-01	CAP CER 0805 220P 5% NPO 50V	L390	050-00016-31	COIL TAIT NO 631 455KHZ	
C822		015-25220-08	CAP CER 0805 22N 10% X7R 50V	L420	056-00021-04	IND FXD 330NH AX	
C824		015-25470-08	CAP CER 0805 47N 10% X7R 50V	L440	056-00021-04	IND FXD 330NH AX	
C826		015-05100-07	CAP 1206 CHIP NPO 10nF 25V	L740	052-08125-15	COIL A/W 1.5T/2.5MM HOR 0.8MM	
C828		015-05100-07	CAP 1206 CHIP NPO 10nF 25V	L910	052-08125-25	COIL A/W 2.5T/2.5MM HOR 0.8MM	
C830		015-25470-08	CAP CER 0805 47N 10% X7R 50V	L920	052-08140-15	COIL A/W 1.5T/4.0MM HOR 0.8MM	
C832		016-07100-01	CAP EL 6X4 1M 20% 50V	L930	052-08140-15	COIL A/W 1.5T/4.0MM HOR 0.8MM	
C833		015-25220-08	CAP CER 0805 22N 10% X7R 50V	L940	052-08125-25	COIL A/W 2.5T/2.5MM HOR 0.8MM	
C834		015-25100-08	CAP CER 0805 10N 10% X7R 50V				
C836		015-05100-07	CAP 1206 CHIP NPO 10nF 25V	PL200	240-00020-72	HEADER 2W PCB MG ULTREX	
C837		015-05100-07	CAP 1206 CHIP NPO 10nF 25V	PL210	240-00020-59	HEADER 3 W 1 R PCB MTG	
C838		015-05100-07	CAP 1206 CHIP NPO 10nF 25V	PL220	240-00020-59	HEADER 3 W 1 R PCB MTG	
C840		015-25470-08	CAP CER 0805 47N 10% X7R 50V	PL230	240-00020-63	HEADER 4 W X1R PCB MTG	
C842		016-07100-01	CAP EL 6X4 1M 20% 50V	PL240	240-00020-58	HEADER 5 WX1 R PCB MTG	
C844		016-07100-01	CAP EL 6X4 1M 20% 50V	PL250	240-00020-59	HEADER 3 W 1 R PCB MTG	
C846		016-07100-01	CAP EL 6X4 1M 20% 50V	PL260	240-00020-59	HEADER 3 W 1 R PCB MTG	
C848		016-07100-01	CAP EL 6X4 1M 20% 50V	PL270	240-00020-59	HEADER 3 W 1 R PCB MTG	
C850		015-25470-08	CAP CER 0805 47N 10% X7R 50V				
C873		015-25220-08	CAP CER 0805 22N 10% X7R 50V	Q210	000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	
C876		020-09100-04	CAP ELE RA 100M 10V 6.3X9MM	Q220	000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	
C879		020-08100-04	CAP ELE RA 10M 16V 4X7MM	Q230	000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	
C910		015-21330-01	CAP CER 0805 3P3+-1/4P NPO 50V	Q240	000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	
C920		015-21680-01	CAP CER 0805 6P8+-1/4P NPO 50V	Q245	000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	
C930		015-21820-01	CAP CER 0805 8P2+-1/4P NPO 50V	Q250	000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	
C940		015-21680-01	CAP CER 0805 6P8+-1/4P NPO 50V	Q255	000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	
C950		015-21330-01	CAP CER 0805 3P3+-1/4P NPO 50V	Q260	000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	
				Q270	000-10008-17	S) XSTR SMD BC817-25 NPN SOT23	
D111		001-00011-60	S) DIODE MR750 OR SR2607	Q280	000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	
D220		001-10000-56	S) DIODE SMD BAW56 D-SW SOT23	Q290	000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	
D230		001-10000-70	S) DIODE SMD BAV70 D-SW SOT23	Q310	000-50020-18	S) XSTR AI BF247A JFETTO92 VHF	

Ref	Var	IPN	Description	Ref	Var	IPN	Description
Q320		000-10008-92	S) XSTR SMD BFS17 NPN SOT23	R272		036-15470-00	RES M/F 0805 47K 5%
Q330		000-10009-91	S) XSTR SMD BF991 DG MFET	R273		036-15150-00	RES M/F 0805 15K 5%
Q340		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R275		036-13100-00	RES M/F 0805 100E 5%
Q350		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R277		036-14560-00	RES M/F 0805 5K6 5%
Q360		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R278		036-16220-00	RES M/F 0805 220K 5%
Q410		000-10057-10	S) XSTR SMD BR571 NPN SOT23	R280		036-16100-00	RES M/F 0805 100K 5%
Q540		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R281		036-14470-00	RES M/F 0805 4K7 5%
Q620		000-00012-15	S) XSTR BD234 PNP AF PWR TO126	R282		036-16100-00	RES M/F 0805 100K 5%
Q630		000-50011-30	S) XSTR AI BC557B PNP TO92 AF	R284		036-13100-00	RES M/F 0805 100E 5%
Q660		000-10008-17	S) XSTR SMD BC817-25 NPN SOT23	R285		036-15470-00	RES M/F 0805 47K 5%
Q670		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R287		036-15100-00	RES M/F 0805 10K 5%
Q750		000-10008-07	S) XSTR SMD BC807 PNP SOT23 AF	R288		036-14470-00	RES M/F 0805 4K7 5%
Q760		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R289		036-14680-00	RES M/F 0805 6K8 5%
Q770		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R290		036-14100-00	RES M/F 0805 1K 5%
Q775		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R292		036-14680-00	RES M/F 0805 6K8 5%
Q780		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R293		036-13560-00	RES M/F 0805 560E 5%
Q785		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R294		036-14100-00	RES M/F 0805 1K 5%
Q790		000-10003-12	S) XSTR SMD BFR31 N JFET SOT23	R295		036-14680-00	RES M/F 0805 6K8 5%
Q795		000-10057-10	S) XSTR SMD BR571 NPN SOT23	R296		036-14120-00	RES M/F 0805 1K2 5%
Q810		000-10008-17	S) XSTR SMD BC817-25 NPN SOT23	R297		030-52100-20	RES FILM AI 10E 5% 0.4W 4X1.6
Q820		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R298		036-15470-00	RES M/F 0805 47K 5%
Q840		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R299		036-15470-00	RES M/F 0805 47K 5%
Q850		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R302		036-12390-00	RES M/F 0805 39E 5%
Q860		000-10008-57	S) XSTR SMD BCW70 PNP SOT23 SS	R304		036-14270-00	RES M/F 0805 2K7 5%
Q870		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R306		036-12100-00	RES M/F 0805 10E 5%
Q880		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R308		036-12100-00	RES M/F 0805 10E 5%
Q890		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R310		036-10000-00	RES M/F 0805 ZERO OHM
Q895		000-10008-48	S) XSTR SMD BCW60 NPN SOT23 SS	R312		036-14330-00	RES M/F 0805 3K3 5%
R160		036-12100-00	RES M/F 0805 10E 5%	R314		036-14470-00	RES M/F 0805 4K7 5%
R201		036-14470-00	RES M/F 0805 4K7 5%	R316		036-12470-00	RES M/F 0805 47E 5%
&R202	10	036-14470-00	RES M/F 0805 4K7 5%	R318		036-15100-00	RES M/F 0805 10K 5%
&R202	13	036-14470-00	RES M/F 0805 4K7 5%	R320		036-14390-00	RES M/F 0805 3K9 5%
&R202	15	036-14330-00	RES M/F 0805 3K3 5%	R322		036-14820-00	RES M/F 0805 8K2 5%
&R202	20	036-14470-00	RES M/F 0805 4K7 5%	R323		036-15100-00	RES M/F 0805 10K 5%
&R202	23	036-14470-00	RES M/F 0805 4K7 5%	R324		036-15220-00	RES M/F 0805 22K 5%
&R202	25	036-14330-00	RES M/F 0805 3K3 5%	R326		036-15100-00	RES M/F 0805 10K 5%
&R202	30	036-14470-00	RES M/F 0805 4K7 5%	R328		036-14100-00	RES M/F 0805 1K 5%
&R202	35	036-14330-00	RES M/F 0805 3K3 5%	R330		036-12470-00	RES M/F 0805 47E 5%
R204		036-15100-00	RES M/F 0805 10K 5%	R332		036-13330-00	RES M/F 0805 330E 5%
R205		036-16220-00	RES M/F 0805 220K 5%	R334		045-03150-01	RES NTC 150E 0.5W 5MM DISC
R207		036-14820-00	RES M/F 0805 8K2 5%	R336		036-13470-00	RES M/F 0805 470E 5%
&R209	10	036-15220-00	RES M/F 0805 22K 5%	R337		036-13220-00	RES M/F 0805 220E 5%
&R209	13	036-15220-00	RES M/F 0805 22K 5%	R338		036-14100-00	RES M/F 0805 1K 5%
&R209	15	036-15180-00	RES M/F 0805 18K 5%	R339		036-15100-00	RES M/F 0805 10K 5%
&R209	20	036-15220-00	RES M/F 0805 22K 5%	R340		036-10000-00	RES M/F 0805 ZERO OHM
&R209	23	036-15220-00	RES M/F 0805 22K 5%	R341		036-10000-00	RES M/F 0805 ZERO OHM
&R209	25	036-15180-00	RES M/F 0805 18K 5%	&R344	10	036-15560-00	RES M/F 0805 56K 5%
&R209	30	036-15220-00	RES M/F 0805 22K 5%	&R344	13	036-15560-00	RES M/F 0805 56K 5%
&R209	35	036-15180-00	RES M/F 0805 18K 5%	&R344	15	036-15820-00	RES M/F 0805 82K 5%
R210		036-15150-00	RES M/F 0805 15K 5%	&R344	20	036-15560-00	RES M/F 0805 56K 5%
R211		036-15390-00	RES M/F 0805 39K 5%	&R344	23	036-15560-00	RES M/F 0805 56K 5%
R213		036-14270-00	RES M/F 0805 2K7 5%	&R344	25	036-15820-00	RES M/F 0805 82K 5%
R215		036-15150-00	RES M/F 0805 15K 5%	&R344	30	036-15560-00	RES M/F 0805 56K 5%
R218		036-14390-00	RES M/F 0805 3K9 5%	&R344	35	036-15820-00	RES M/F 0805 82K 5%
&R219	10	036-14820-00	RES M/F 0805 8K2 5%	R346		036-12100-00	RES M/F 0805 10E 5%
&R219	13	036-14820-00	RES M/F 0805 8K2 5%	R348		036-13220-00	RES M/F 0805 220E 5%
&R219	15	036-14470-00	RES M/F 0805 4K7 5%	R350		036-15180-00	RES M/F 0805 18K 5%
&R219	20	036-14820-00	RES M/F 0805 8K2 5%	R351		036-15100-00	RES M/F 0805 10K 5%
&R219	23	036-14820-00	RES M/F 0805 8K2 5%	R352		036-16390-00	RES M/F 0805 390K 5%
&R219	25	036-14470-00	RES M/F 0805 4K7 5%	R353		036-10000-00	RES M/F 0805 ZERO OHM
&R219	30	036-14820-00	RES M/F 0805 8K2 5%	R354		036-17100-00	RES M/F 0805 1M 5%
&R219	35	036-14470-00	RES M/F 0805 4K7 5%	R356		036-13180-00	RES M/F 0805 180E 5%
R221		036-15470-00	RES M/F 0805 47K 5%	R358		036-12470-00	RES M/F 0805 47E 5%
R222		036-16100-00	RES M/F 0805 100K 5%	R360		036-15150-00	RES M/F 0805 15K 5%
%R223		036-12100-00	RES M/F 0805 10E 5%	R362		036-14330-00	RES M/F 0805 3K3 5%
R224		036-14390-00	RES M/F 0805 3K9 5%	R364		036-14100-00	RES M/F 0805 1K 5%
R225		036-13470-00	RES M/F 0805 470E 5%	R365		036-16150-00	RES M/F 0805 150K 5%
R227		036-14100-00	RES M/F 0805 1K 5%	R366		036-14330-00	RES M/F 0805 3K3 5%
R229		036-14470-00	RES M/F 0805 4K7 5%	R367		036-16150-00	RES M/F 0805 150K 5%
R230		036-14470-00	RES M/F 0805 4K7 5%	R368		036-15220-00	RES M/F 0805 22K 5%
R232		036-15470-00	RES M/F 0805 47K 5%	R370		036-16100-00	RES M/F 0805 100K 5%
R233		036-14820-00	RES M/F 0805 8K2 5%	R372		036-14270-00	RES M/F 0805 2K7 5%
R234		036-15470-00	RES M/F 0805 47K 5%	R374		036-14100-00	RES M/F 0805 1K 5%
R236		036-15470-00	RES M/F 0805 47K 5%	R376		036-10000-00	RES M/F 0805 ZERO OHM
R238		036-11470-00	RES M/F 0805 4E7 10%	R378		036-16100-00	RES M/F 0805 100K 5%
R239		036-14100-00	RES M/F 0805 1K 5%	R380		036-15100-00	RES M/F 0805 10K 5%
R241		036-14100-00	RES M/F 0805 1K 5%	R382		036-15470-00	RES M/F 0805 47K 5%
R242		036-13100-00	RES M/F 0805 100E 5%	R384		036-15470-00	RES M/F 0805 47K 5%
R244		036-14680-00	RES M/F 0805 6K8 5%	R386		036-15120-00	RES M/F 0805 12K 5%
R245		036-14100-00	RES M/F 0805 1K 5%	R388		036-15100-00	RES M/F 0805 10K 5%
R247		036-14220-00	RES M/F 0805 2K2 5%	R390		045-05100-01	RES NTC 10K 5% 5MM DISC
R249		036-15100-00	RES M/F 0805 10K 5%	R392		036-10000-00	RES M/F 0805 ZERO OHM
R251		036-15390-00	RES M/F 0805 39K 5%	R393		036-15100-00	RES M/F 0805 10K 5%
R252		036-14470-00	RES M/F 0805 4K7 5%	R394		036-12470-00	RES M/F 0805 47E 5%
R254		036-14820-00	RES M/F 0805 8K2 5%	R395		036-10000-00	RES M/F 0805 ZERO OHM
R255		036-15470-00	RES M/F 0805 47K 5%	R396		036-13390-00	RES M/F 0805 390E 5%
R256		036-14470-00	RES M/F 0805 4K7 5%	R397		036-13820-00	RES M/F 0805 820E 5%
R258		036-15470-00	RES M/F 0805 47K 5%	R398		036-14220-00	RES M/F 0805 2K2 5%
R260		036-11470-00	RES M/F 0805 4E7 10%	R399		045-05100-01	RES NTC 10K 5% 5MM DISC
R261		036-13150-00	RES M/F 0805 150E 5%	R405		036-10000-00	RES M/F 0805 ZERO OHM
R262		036-14100-00	RES M/F 0805 1K 5%	R410		036-10000-00	RES M/F 0805 ZERO OHM
R264		036-15270-00	RES M/F 0805 27K 5%	R415		036-13330-00	RES M/F 0805 330E 5%
R265		036-13100-00	RES M/F 0805 100E 5%	R420		036-12100-00	RES M/F 0805 10E 5%
R266		036-15220-00	RES M/F 0805 22K 5%	R425		036-14100-00	RES M/F 0805 1K 5%
R267		036-16330-00	RES M/F 0805 330K 5%	R430		036-13150-00	RES M/F 0805 150E 5%
R269		036-14220-00	RES M/F 0805 2K2 5%	R435		036-12100-00	RES M/F 0805 10E 5%
R271		036-16100-00	RES M/F 0805 100K 5%	R440		036-10000-00	RES M/F 0805 ZERO OHM
				R445		036-13470-00	RES M/F 0805 470E 5%

Ref	Var	IPN	Description	Ref	Var	IPN	Description
R450		036-12100-00	RES M/F 0805 10E 5%	R836		036-14220-00	RES M/F 0805 2K2 5%
R455		036-13470-00	RES M/F 0805 470E 5%	R837		036-14220-00	RES M/F 0805 2K2 5%
R460		036-13180-00	RES M/F 0805 180E 5%	R840		036-14220-00	RES M/F 0805 2K2 5%
R465		036-12330-00	RES M/F 0805 33E 5%	R841		036-14220-00	RES M/F 0805 2K2 5%
R470		036-13180-00	RES M/F 0805 180E 5%	R842		036-14220-00	RES M/F 0805 2K2 5%
R475		036-12470-00	RES M/F 0805 47E 5%	R843		036-14220-00	RES M/F 0805 2K2 5%
R510		036-14220-00	RES M/F 0805 2K2 5%	R844		036-15470-00	RES M/F 0805 47K 5%
R515		036-12560-00	RES M/F 0805 56E 5%	R845		036-16150-00	RES M/F 0805 150K 5%
R555		036-13470-00	RES M/F 0805 470E 5%	R846		036-14470-00	RES M/F 0805 4K7 5%
R615		036-13100-00	RES M/F 0805 100E 5%	R847		036-14470-00	RES M/F 0805 4K7 5%
R617		036-10000-00	RES M/F 0805 ZERO OHM	R848		036-13470-00	RES M/F 0805 470E 5%
R619		032-31100-00	RES M/F PWR 1E0 5% 1W 12X4.5MM	R849		036-13470-00	RES M/F 0805 470E 5%
R621		032-31100-00	RES M/F PWR 1E0 5% 1W 12X4.5MM	R850		036-13470-00	RES M/F 0805 470E 5%
R625		036-14100-00	RES M/F 0805 1K 5%	R851		036-13470-00	RES M/F 0805 470E 5%
R629		032-33270-00	RES M/F PWR 270E 5% 1W 12X4.5	R852		036-14470-00	RES M/F 0805 4K7 5%
R633		036-14680-00	RES M/F 0805 6K8 5%	R853		036-13470-00	RES M/F 0805 470E 5%
R636		036-12330-00	RES M/F 0805 33E 5%	R854		036-16330-00	RES M/F 0805 330K 5%
R637		036-12330-00	RES M/F 0805 33E 5%	R855		036-15470-00	RES M/F 0805 47K 5%
R641		036-14150-00	RES M/F 0805 1K5 5%	R856		036-16150-00	RES M/F 0805 150K 5%
R645		036-13470-00	RES M/F 0805 470E 5%	R857		036-16150-00	RES M/F 0805 150K 5%
R649		036-14470-00	RES M/F 0805 4K7 5%	R858		036-15270-10	RES M/F 0805 27K 1%
R653		036-15100-00	RES M/F 0805 10K 5%	R859		036-17120-10	RES MF 0805 CHIP 1M2 1%
R681		036-13100-00	RES M/F 0805 100E 5%	R860		036-16820-10	RES MF 0805 CHIP 820K 1%
R685		036-15150-00	RES M/F 0805 15K 5%	R861		036-14510-10	RES MF 0805 CHIP 5K1 1%
R689		036-12100-00	RES M/F 0805 10E 5%	R863		036-14470-00	RES M/F 0805 4K7 5%
R693		036-16100-00	RES M/F 0805 100K 5%	R865		036-14270-00	RES M/F 0805 2K7 5%
R696		036-15560-00	RES M/F 0805 56K 5%	R866		036-16820-00	RES M/F 0805 820K 5%
R701		036-12220-00	RES M/F 0805 22E 5%	R867		036-16820-00	RES M/F 0805 820K 5%
R702		036-17100-00	RES M/F 0805 1M 5%	R868		036-14470-00	RES M/F 0805 4K7 5%
R703		036-17100-00	RES M/F 0805 1M 5%	R869		036-15270-10	RES M/F 0805 27K 1%
R706		036-15150-00	RES M/F 0805 15K 5%	R870		036-17120-10	RES MF 0805 CHIP 1M2 1%
R707		036-15470-00	RES M/F 0805 47K 5%	R871		036-16820-10	RES MF 0805 CHIP 820K 1%
R708		036-13100-00	RES M/F 0805 100E 5%	R872		036-14510-10	RES MF 0805 CHIP 5K1 1%
R709		036-13100-00	RES M/F 0805 100E 5%	R873		036-14220-00	RES M/F 0805 2K2 5%
R710		036-13100-00	RES M/F 0805 100E 5%	R875		036-14470-00	RES M/F 0805 4K7 5%
R711		036-13100-00	RES M/F 0805 100E 5%	R876		036-16100-00	RES M/F 0805 100K 5%
R712		036-12100-00	RES M/F 0805 10E 5%	R877		036-16100-00	RES M/F 0805 100K 5%
R742		036-13150-00	RES M/F 0805 150E 5%	R878		036-16100-00	RES M/F 0805 100K 5%
R743		036-13150-00	RES M/F 0805 150E 5%	R879		036-16100-00	RES M/F 0805 100K 5%
R744		036-12220-00	RES M/F 0805 22E 5%	R881		036-15470-00	RES M/F 0805 47K 5%
R746		036-12220-00	RES M/F 0805 22E 5%	R882		036-15470-00	RES M/F 0805 47K 5%
R747		036-12220-00	RES M/F 0805 22E 5%	R884		036-16150-00	RES M/F 0805 150K 5%
R748		036-15470-00	RES M/F 0805 47K 5%	R885		036-16150-00	RES M/F 0805 150K 5%
R749		036-15470-00	RES M/F 0805 47K 5%	R886		036-15100-10	RES M/F 0805 10K 1K
R750		036-12220-00	RES M/F 0805 22E 5%	R887		036-14100-10	RES M/F 0805 CHIP 1K 1%
R752		036-12220-00	RES M/F 0805 22E 5%	R888		036-14820-10	RES M/F 0805 8K2 1%
R753		036-17100-00	RES M/F 0805 1M 5%	R889		036-16100-00	RES M/F 0805 100K 5%
R754		036-14100-00	RES M/F 0805 1K 5%	R890		036-16150-00	RES M/F 0805 150K 5%
R756		036-16470-00	RES M/F 0805 470K 5%	R891		036-16100-00	RES M/F 0805 100K 5%
R757		036-16470-00	RES M/F 0805 470K 5%	R892		036-16330-00	RES M/F 0805 330K 5%
R758		036-14120-00	RES M/F 0805 1K2 5%	R894		036-14470-00	RES M/F 0805 4K7 5%
R759		036-13330-00	RES M/F 0805 330E 5%	R895		036-15100-00	RES M/F 0805 10K 5%
R760		036-13180-00	RES M/F 0805 180E 5%	R897		036-15100-00	RES M/F 0805 10K 5%
R762		036-13100-00	RES M/F 0805 100E 5%	R898		036-16470-00	RES M/F 0805 470K 5%
R763		036-13100-00	RES M/F 0805 100E 5%				
R765		036-13680-00	RES M/F 0805 680E 5%	RL210		237-00010-22	RELAY 12V DPDT 8PIN DIL PCB MT
R766		036-14100-00	RES M/F 0805 1K 5%				
R767		036-13680-00	RES M/F 0805 680E 5%	RV205		040-05100-22	POT 10K LOG DUAL PCB 6 OD SFT
R769		036-13180-00	RES M/F 0805 180E 5%	RV210		040-05100-23	POT 10K LOG PCB 15MM SLOT SFT
R771		036-14820-00	RES M/F 0805 8K2 5%	RV220		042-05100-06	RES PRE 10K CAR 6MM FLAT
R772		036-15220-00	RES M/F 0805 22K 5%	RV230		040-05100-21	POT 10K LIN PCB 15MM SLOT SFT
R774		036-14820-00	RES M/F 0805 8K2 5%	RV235		042-05100-06	RES PRE 10K CAR 6MM FLAT
R775		036-15180-00	RES M/F 0805 18K 5%	RV310		042-04220-06	RES PRE 2K2 CAR 6MM FLAT
R780		036-12680-00	RES M/F 0805 68E 5%	RV320		042-04220-06	RES PRE 2K2 CAR 6MM FLAT
R782		036-12180-00	RES M/F 0805 18E 5%				
R784		036-13120-00	RES M/F 0805 120E 5%	SHLD610		062-00010-13	CAN 10MM SQ X 11MM CAN A4M1017
R785		036-14330-00	RES M/F 0805 3K3 5%				
R786		036-12100-00	RES M/F 0805 10E 5%	SK320		240-04020-64	SKT JACK 0.98MM PCB MTG 64 WAY
R787		036-12100-00	RES M/F 0805 10E 5%	SK330		240-04020-64	SKT JACK 0.98MM PCB MTG 64 WAY
R790		036-13390-00	RES M/F 0805 390E 5%	SK501		240-04021-77	SKT JACK 1.3 PCB MT 64W
R791		036-14100-00	RES M/F 0805 1K 5%	SK502		240-04021-77	SKT JACK 1.3 PCB MT 64W
R804		036-15470-00	RES M/F 0805 47K 5%	SK503		240-04021-77	SKT JACK 1.3 PCB MT 64W
R805		036-13470-00	RES M/F 0805 470E 5%	SK504		240-04021-77	SKT JACK 1.3 PCB MT 64W
R808		036-12100-00	RES M/F 0805 10E 5%	SK505		240-04021-77	SKT JACK 1.3 PCB MT 64W
R809		036-14470-00	RES M/F 0805 4K7 5%	SK513		240-04021-77	SKT JACK 1.3 PCB MT 64W
R810		036-14470-00	RES M/F 0805 4K7 5%	SK522		240-04021-77	SKT JACK 1.3 PCB MT 64W
R811		036-14470-00	RES M/F 0805 4K7 5%	SK531		240-04021-77	SKT JACK 1.3 PCB MT 64W
R812		036-14470-00	RES M/F 0805 4K7 5%	SK532		240-04021-77	SKT JACK 1.3 PCB MT 64W
R813		036-14470-00	RES M/F 0805 4K7 5%	SK533		240-04021-77	SKT JACK 1.3 PCB MT 64W
R815		036-15470-00	RES M/F 0805 47K 5%	SK534		240-04021-77	SKT JACK 1.3 PCB MT 64W
R816		036-16150-00	RES M/F 0805 150K 5%	SK535		240-04021-77	SKT JACK 1.3 PCB MT 64W
R818		036-14470-00	RES M/F 0805 4K7 5%	SK805		240-10000-07	CONN SMD SKT 16W 2R M-MATCH
R819		036-14470-00	RES M/F 0805 4K7 5%	SK810		240-04020-42	SKT 44 PIN SMD PLCC
R820		036-15470-00	RES M/F 0805 47K 5%				
R821		036-15470-00	RES M/F 0805 47K 5%	SW201		230-00010-30	SWITCH TOG SPDT R-ANG PCB MTG
R822		036-15470-00	RES M/F 0805 47K 5%				
R823		036-15470-00	RES M/F 0805 47K 5%	T210		053-00010-17	XFMR T4030 LINE MATCH POTCORE
R824		036-14220-00	RES M/F 0805 2K2 5%	T610		050-00016-50	COIL TAIT NO 650 455KHZ
R825		036-14220-00	RES M/F 0805 2K2 5%				
R826		036-14220-00	RES M/F 0805 2K2 5%	&XF300A 10		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R827		036-14220-00	RES M/F 0805 2K2 5%	&XF300A 13		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R828		036-14220-00	RES M/F 0805 2K2 5%	&XF300A 15		276-00010-57	FLTR XTAL 45MHZ 7.5K 4POLE 1PR
R829		036-14220-00	RES M/F 0805 2K2 5%	&XF300A 20		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R830		036-14220-00	RES M/F 0805 2K2 5%	&XF300A 23		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R831		036-14220-00	RES M/F 0805 2K2 5%	&XF300A 25		276-00010-57	FLTR XTAL 45MHZ 7.5K 4POLE 1PR
R832		036-14220-00	RES M/F 0805 2K2 5%	&XF300A 30		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR
R833		036-14220-00	RES M/F 0805 2K2 5%	&XF300A 35		276-00010-57	FLTR XTAL 45MHZ 7.5K 4POLE 1PR
R835		036-14220-00	RES M/F 0805 2K2 5%	&XF300B 10		276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR

Ref	Var	IPN	Description	Ref	Var	IPN	Description
&XF300B	13	276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR				
&XF300B	15	276-00010-57	FLTR XTAL 45MHZ 7.5K 4POLE 1PR				
&XF300B	20	276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR				
&XF300B	23	276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR				
&XF300B	25	276-00010-57	FLTR XTAL 45MHZ 7.5K 4POLE 1PR				
&XF300B	30	276-00010-58	FLTR XTAL 45MHZ 15K 4POLE 1PR				
&XF300B	35	276-00010-57	FLTR XTAL 45MHZ 7.5K 4POLE 1PR				
&XF301	10	276-00010-56	FLTR XTAL 45MHZ 14KHZ BW 2 P				
&XF301	13	276-00010-56	FLTR XTAL 45MHZ 14KHZ BW 2 P				
&XF301	15	276-00010-54	FLTR XTAL 45MHZ 7.5KHZ 2POLE				
&XF301	20	276-00010-56	FLTR XTAL 45MHZ 14KHZ BW 2 P				
&XF301	23	276-00010-56	FLTR XTAL 45MHZ 14KHZ BW 2 P				
&XF301	25	276-00010-54	FLTR XTAL 45MHZ 7.5KHZ 2POLE				
&XF301	30	276-00010-56	FLTR XTAL 45MHZ 14KHZ BW 2 P				
&XF301	35	276-00010-54	FLTR XTAL 45MHZ 7.5KHZ 2POLE				
&XF302	10	276-00010-14	FLTR CER 455KHZ E 15KHZ B/W				
&XF302	13	276-00010-76	FLTR CER 455KHZ F 12KHZ B/W				
&XF302	15	276-00010-13	FLTR CER 455KHZ G 9KHZ B/W				
&XF302	20	276-00010-14	FLTR CER 455KHZ E 15KHZ B/W				
&XF302	23	276-00010-76	FLTR CER 455KHZ F 12KHZ B/W				
&XF302	25	276-00010-13	FLTR CER 455KHZ G 9KHZ B/W				
&XF302	30	276-00010-14	FLTR CER 455KHZ E 15KHZ B/W				
&XF302	35	276-00010-13	FLTR CER 455KHZ G 9KHZ B/W				
X310		274-00010-22	XTAL 44.545MHZ TE/22 HC45/U				

T855 Mechanical & Miscellaneous Parts (220-01396-03)

IPN	Legend	Description	IPN	Legend	Description
066-00010-20	1	SLUG BRASS A4M764 HELIC RESNTR			
070-01001-00	15/28	D-RANGE 15 WAY COMPL T800			
070-02001-00		LED RED COMPL T800 RX/TX/EX			
070-02002-00		LED GREEN COMPL T800 RX/TX/EX			
200-00010-04		WIRE T/C 0.7			
220-01145-02	2	PCB T855/856/857 VCO			
220-01396-02	3	PCB T855 SERIES II			
230-00010-31	4	SWITCH COVER FOR 230-00010-30			
240-02100-06	5	SKT COAX N TYPE PNL MTG OP-TER			
240-04020-62		SKT 2 W RECEP SHORTING LINK PL210/220/230/240/250/260/270			
303-11169-03	6	CHASSIS PAINTED T800 SERIES			
303-23118-00	7	COVER A3M2247 D RANGE T855/7			
303-50074-00	8	CLIP A3M2246 SPRING CLAMP T857			
308-01007-01	9	HANDLE BASE STATION SERIES II			
308-01048-00	10	HOUSING A3M2378 DOUBLET H/RES			
311-01015-00	11	KNOB 15MM & SKIRT 6MM SFT			
312-01052-01	12	LID TOP PNTD A1M2364 T800			
312-01053-01	13	LID BOTTOM PNTD A1M2364 T800			
316-06622-00	14	PNL FRT RX T800 SERIES II			
345-00040-10	16	SCRW M3X6MM P/POZ ST BZ			
349-00020-36	17	LIM)SCREW TT M3X8m PANTORX BLK			
349-00020-43	18	SCRW T/T M4X12MM P/POZ BZ			
349-00020-45	19	SCRW T/T M4X20MM P/POZ BZ			
350-00016-42	20	SPACER 5MM HI 8MM ST 2.5MM HO			
352-00010-08	21	NUT M3 COLD FORM HEX ST BZ			
352-00010-29	22	NUT M4 NYLOC HEX			
352-00010-54	23	NUT BRASS HEX 1/4" UNF 3MM			
353-00010-10	24	WSHR M3 FLAT 7MMX0.6MM ST BZ			
353-00010-13	25	WSHR M3 S/PROOF INT BZ			
356-00010-03		TAG SOLDER 3MM LONG M614/3.2 Main PCB to chassis earth strap (via D-range shield).			
362-00010-23	26	GASKET SIL TO-220 CLIP MTG.			
362-00010-33	27	GROMMET LED MTG 3MM			
365-00011-53		LABEL 104X37MM			
365-00100-09		LABEL WHITE VINYL 15X11MM S/A			
365-00100-20		LABEL WHITE S/A 28X11MM			
365-01541-00		LABEL TX/RX/EX TYPE APR/SER NO			
399-00010-51		BAG PLASTIC 75X100MM			
410-01081-01		CRT T800 SERIES II			
410-01082-01		CRTN 10 T800 KIWI 423X410X360			

replace A4 pages B6.3.39/B6.3.40 with A3 pages B6.3.39/B6.3.40

replace A4 pages B6.3.39/B6.3.40 with A3 pages B6.3.39/B6.3.40

T855 Grid Reference Index (IPN 220-01396-03)

How To Use This Grid Reference Index

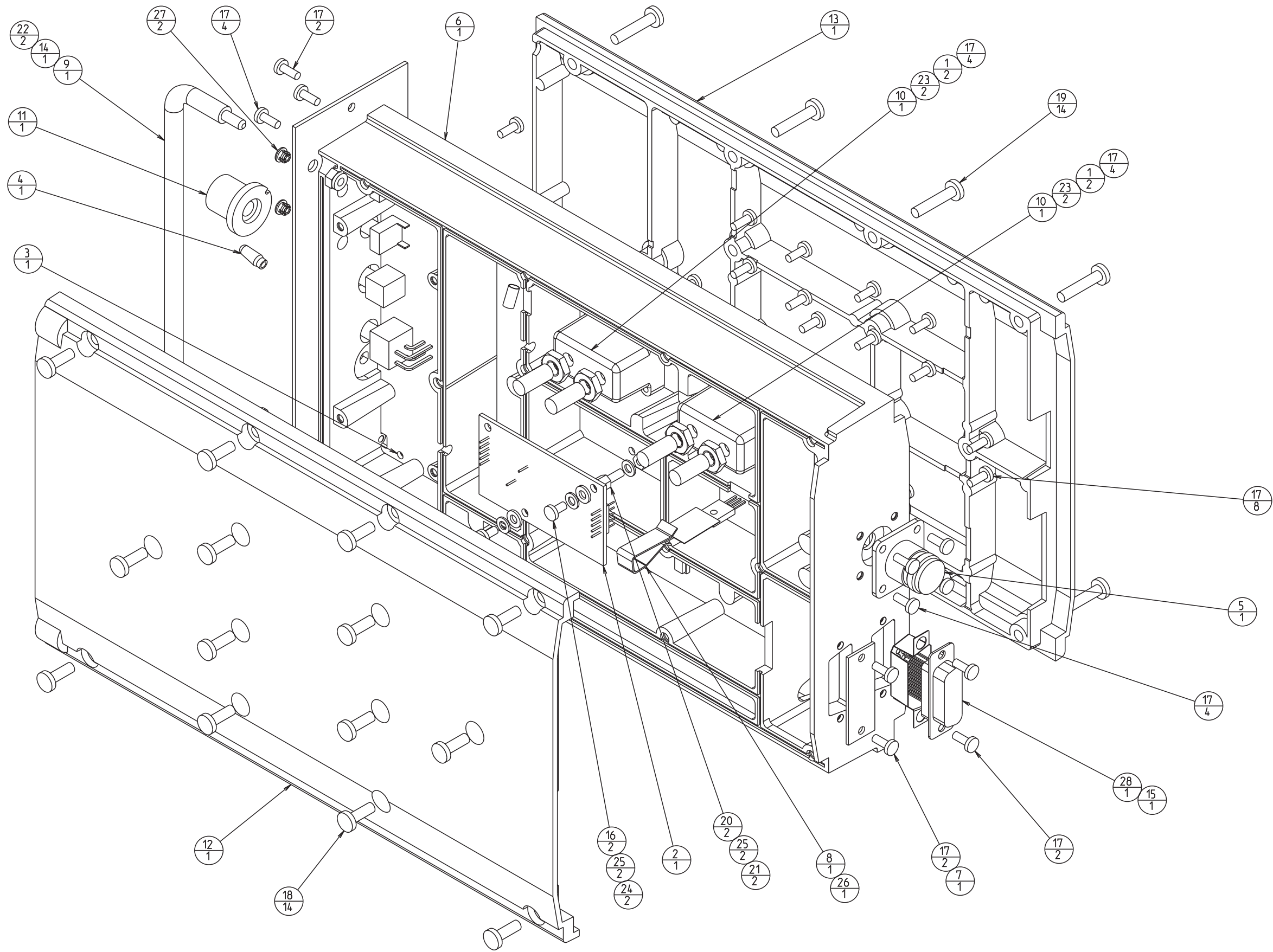
The first digit in the PCB layout reference is a "1" or "2", indicating the top or bottom side layout respectively, and the last two characters give the location of the component on that diagram.

The first digit in the circuit diagram reference is the sheet number, and the last two characters give the location of the component on that sheet.

Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit
C201	1:D7	2-B9	&C326	2:E7	3-E5	C611B	1:M5	6-F8	C784	1:G2	7-Q1
&C203	2:C6	2-B8	C328	2:E7	3-F5	C623	1:M6	6-N8	C786	1:G2	7-R1
&C205	2:C6	2-B8	C330	2:F7	3-F6	C625	1:M6	6-Q8	C788	1:G3	7-P0
C207	1:D6	2-C8	C331	2:F7	3-H5	C626	1:M6	6-R8	C791	1:G4	7-Q0
C209	1:C7	2-E8	C332	2:E7	3-G4	C628	1:M6	6-R8	C792	1:G4	7-R0
C210	2:C7	2-C7	&C334	2:F7	3-H5	C630	1:M5	6-K4	C810	1:L4	8-K8
C211	2:C7	2-D7	&C336	2:E7	3-H5	C631A	1:M5	6-M6	C812	1:K2	8-E5
C213	2:C7	2-E7	&C338	2:E7	3-J5	C631B	1:N5	6-M6	C813	1:J3	8-H5
C215	2:C7	2-E7	&C340	2:E7	3-J5	C637	1:M6	6-P5	C814	1:L2	8-Q4
C217	2:C7	2-E7	C342	2:E6	3-K5	C640	1:M5	6-R5	C815	1:N3	8-B2
C219	2:C6	2-H6	C344	2:E6	3-K6	C651	1:M5	6-M4	C816	1:N3	8-B2
C221	2:C6	2-H6	C346	2:E6	3-L5	C658	1:M5	6-J1	C818	1:N3	8-C1
C222	1:C6	2-J9	C347	2:E4	3-M5	C660	1:L5	6-K1	C819	1:N3	8-D1
C223	2:C6	2-J8	C348	2:E6	3-M5	C665	1:L5	6-K1	C820	1:N4	8-E1
C225	2:C6	2-J8	C349	2:E6	3-L6	C670	1:L6	6-L1	C822	1:N3	8-D2
C227	2:C6	2-J8	C350	2:E6	3-M6	C673	1:L5	6-P2	C824	1:N3	8-D2
C229	1:C6	2-K8	C351	2:E4	3-M6	C677	1:M6	6-P1	C826	1:N3	8-D0
C231	1:B3	2-K8	C352	2:E4	3-N5	C681	1:M5	6-R3	C828	1:N3	8-D0
C233	1:B7	2-J7	C354	1:F5	3-N6	C684	1:M6	6-R3	C830	1:M4	8-F1
C235	2:C5	2-M6	C355	1:F4	3-P6	C687	1:L6	6-Q1	C832	1:M3	8-G2
C237	2:C6	2-M5	C356	2:E5	3-N6	C690	1:L6	6-R1	C833	1:M4	8-G1
C238	2:C5	2-N7	C357	2:E5	3-Q5	C693	1:L6	6-R1	C834	1:M3	8-H2
C239	1:C5	2-P6	C358	2:F5	3-Q6	C700	1:J4	7-A8	C836	1:M3	8-G0
C240A	2:B5	2-Q8	C359	1:F4	3-P6	C702	1:J4	7-B8	C837	1:M3	8-G0
C240B	2:B5	2-R8	C360	2:F4	3-R6	C703	1:J3	7-B7	C838	1:N4	8-H0
C240C	1:C5	2-R8	C361	2:F5	3-Q6	C705	1:J3	7-B7	C840	1:M2	8-K1
C249	1:B5	2-Q7	C362	2:E6	3-R4	C707	1:J3	7-B5	C842	1:N2	8-L0
C251	2:A5	2-R7	C364	2:E5	3-A2	C708	1:J3	7-B5	C844	1:N3	8-L0
C253	1:C8	2-G5	C366	2:E5	3-B2	C709	1:H3	7-C5	C846	1:M2	8-M0
C255	2:B7	2-L2	C367	2:E5	3-Q5	C710A	1:H3	7-D8	C848	1:N2	8-M0
C257	2:B6	2-M2	C368	2:F5	3-C2	C710B	1:H4	7-D8	C850	1:M2	8-N0
C259	2:B6	2-M3	C370	2:E4	3-C1	C710C	1:J3	7-F8	C873	1:M4	8-N2
C260A	2:B6	2-P4	C372	2:F3	3-E1	C711	1:J2	7-E7	C876	1:M4	8-P2
C260B	2:B6	2-P4	C374	2:F3	3-D3	C712	1:H2	7-E7	C879	1:M3	8-Q0
C260C	1:B6	2-P4	C376	2:E3	3-E2	C713	1:H2	7-F7	C910	2:P6	9-E6
C261	1:C6	2-N2	C378	2:F3	3-E2	C735	1:J2	7-A1	C920	2:P6	9-F6
C262	1:B5	2-P3	C380	2:E3	3-F2	C736	1:J2	7-B1	C930	2:P7	9-G6
C264	2:B5	2-P2	C382	1:F3	3-G3	C740A	1:H2	7-B4	C940	2:P7	9-H6
C266	1:D2	2-R3	C384	2:E4	3-H2	C740B	1:H2	7-B3	C950	2:N8	9-J6
C268	1:D3	2-R3	C386	2:E4	3-J2	C741A	1:H2	7-C4			
C270	2:B8	2-E3	C388	2:E5	3-M2	C741B	1:G2	7-C3	D111	1:P4	1-R1
C272	2:B8	2-D1	C390	1:E6	3-M2	C742A	1:H2	7-D4	D220	2:D8	2-E4
C274	2:B8	2-E1	C392	2:E4	3-N2	C742B	1:H3	7-D3	D220	2:D8	2-E4
C276	2:C4	2-B0	C394	2:F3	3-P2	C743	1:H2	7-B1	D230	2:C6	2-J4
C278	2:C4	2-C0	C410	2:L8	4-E4	C745	1:G3	7-D1	D230	2:C6	2-J5
C280	2:C4	2-F1	C420	2:L8	4-F5	C750	1:H4	7-H7	D240	2:C8	2-D2
C286	2:B8	2-F1	C430	2:L8	4-G6	C757	1:G4	7-G5	D240	2:C8	2-D3
C302	2:F8	3-C9	C440	1:M7	4-H6	C759	1:G4	7-G4	D250	1:B7	2-H1
C304	2:F8	3-C9	C450	2:K8	4-G5	C761	1:H3	7-J4	D260	2:A7	2-H1
C306	2:F8	3-D8	%C460	2:K8	4-H4	C762	1:G3	7-J4	D270	2:B7	2-H1
C308	2:F8	3-E8	C470	2:G7	4-P5	C764	1:H3	7-J2	D270	2:B7	2-J1
C310	2:F8	3-E8	C480	2:G8	4-Q5	C765	1:G3	7-J2	D280	1:B7	2-K1
C312	1:F7	3-F8	C505	1:K6	5-L8	C767	1:H3	7-K3	D285	1:D2	2-L1
C314	2:F8	3-F8	C515	1:H5	5-F3	C769	1:H4	7-M4	D289	1:C2	2-K0
C316	2:F9	3-F9	C530	1:K5	5-K1	C770	1:H3	7-N4	D290	1:C2	2-L0
&C318	2:E8	3-A5	C535	1:K5	5-L1	C772	1:G4	7-M2	D295	1:C2	2-L0
&C320	2:E8	3-B5	C610A	1:M5	6-C8	C774	1:H4	7-N2	D310	2:E4	3-G2
&C322	2:E8	3-C5	C610B	1:M5	6-D8	C776	1:H4	7-N1	D310	2:E4	3-G1
&C324	2:E7	3-E5	C611A	1:L5	6-E8	C782	1:G2	7-N0	D350	2:E4	3-M4

Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit
D350	2:E4	3-M4	L390	1:F5	3-R6	Q310	1:F9	3-D9	R269	2:C8	2-B1
D610	1:N5	6-L6	L410	2:L9	4-F5	Q320	2:F7	3-F5	R271	2:D3	2-A0
D610	1:N5	6-M6	L420	1:M7	4-F6	Q330	2:E6	3-L5	R272	2:C4	2-B1
D640	1:L5	6-M1	L430	2:K8	4-H5	Q340	2:E5	3-P5	R273	2:C4	2-C1
D640	1:L5	6-M2	L440	1:G8	4-Q5	Q350	2:F4	3-D2	R275	2:C4	2-C1
D730	1:H3	7-H1	L740	1:G3	7-Q0	Q360	2:E3	3-F2	R277	2:C4	2-C0
D730A	1:H3	7-G0	L910	1:P6	9-E7	Q410	2:L8	4-G5	R278	2:C4	2-C1
D740	1:H3	7-J2	L920	1:P6	9-F7	Q540	1:K5	5-K2	R280	2:C8	2-D3
D740A	1:H3	7-H0	L930	1:P7	9-G7	Q620	1:N6	6-P8	R281	2:C8	2-D2
D820	1:J3	8-B7	L940	1:P8	9-H7	Q630	1:M6	6-P5	R282	2:B8	2-E2
D820A	1:J3	8-N0				Q660	1:L5	6-N1	R284	2:C8	2-F3
D860	1:M2	8-N0	P100	1:Q6	1-R8	Q670	1:L6	6-Q2	R285	2:B8	2-F2
D860	1:M2	8-N0	P160	1:P2	1-Q4	Q750	1:G4	7-G3	R287	2:B8	2-F2
D880	1:M2	8-R2	P170	1:P2	1-R4	Q760	1:G3	7-H3	R288	2:B8	2-F1
D880	1:M2	8-R2	P201	1:D4	2-A9	Q770	1:H3	7-H1	R289	2:B7	2-G3
			P204	1:D7	2-A9	Q775	1:H3	7-K3	R290	2:B7	2-G3
#FL410	1:M8	4-C5	P207	1:D6	2-A8	Q780	1:H3	7-K3	R292	2:C8	2-G2
#FL420	1:J8	4-K5	P210	1:D6	2-C7	Q785	1:H3	7-K2	R293	2:B7	2-H1
			P213	1:D3	2-A7	Q790	1:H4	7-L3	R294	2:C3	2-H0
IC210	1:C7	2-C7	P216	1:B2	2-A7	Q795	1:G3	7-P0	R295	2:B7	2-J1
IC210	1:C7	2-F7	P219	1:D7	2-A7	Q810	1:K2	8-C5	R296	2:A7	2-K1
IC210	1:C7	2-G7	P222	1:C5	2-A6	Q820	1:K2	8-C6	R297	1:B2	2-M0
IC240	1:B5	2-P7	P225	1:C8	2-A4	Q840	1:K2	8-F5	R298	2:D7	2-J0
IC260	1:B6	2-N2	P228	1:D8	2-A4	Q850	1:L2	8-G5	R299	2:C7	2-J0
IC270	1:B8	2-F3	P231	1:C7	2-A4	Q860	1:K4	8-B4	R302	2:F8	3-D8
IC270	1:B8	2-E2	P234	1:B7	2-A3	Q870	1:L4	8-C4	R304	2:F8	3-E9
IC270	1:B8	2-B2	P236	1:C8	2-A1	Q880	1:L2	8-L5	R306	2:F8	3-E8
IC280	1:C4	2-E1	P238	1:D3	2-A1	Q890	1:L4	8-K3	R308	2:F7	3-F8
IC280	1:C4	2-B0	P240	1:C8	2-G2	Q895	1:M3	8-P2	R310	2:E9	3-A5
IC280	1:C4	2-D0	P242	1:C7	2-G1				R312	2:F7	3-F5
IC310	1:E5	3-Q5	P244	1:C7	2-G8	R160	1:P2	1-Q4	R314	2:E7	3-F4
IC310	1:E5	3-N5	P246	1:C6	2-H9	R201	2:D6	2-B8	R316	2:F7	3-G6
IC310	1:E5	3-B2	P248	1:C6	2-H9	&R202	2:D6	2-B7	R318	2:F7	3-G5
IC320	1:F3	3-N2	P250	1:B3	2-K8	R204	2:C6	2-C9	R320	2:F7	3-G5
IC410	1:G7	4-P5	P252	1:B2	2-L9	R205	2:C7	2-C8	R322	2:E7	3-K5
IC610	1:M5	6-D8	P254	1:B2	2-L9	R207	2:C7	2-D8	R323	2:E6	3-K5
IC630	1:N5	6-K5	P256	1:B2	2-L8	&R209	2:C7	2-D8	R324	2:E6	3-K5
IC640	1:M5	6-N5	P258	1:D3	2-P8	R210	2:C7	2-D8	R326	2:E6	3-K6
IC640	1:M5	6-J0	P260	1:D3	2-P7	R211	2:C7	2-E8	R328	2:E6	3-L6
IC640	1:M5	6-Q5	P263	1:B2	2-R6	R213	2:C7	2-G6	R330	2:E6	3-M7
IC650	1:L5	6-E5	P266	1:D2	2-R5	R215	2:C6	2-G9	R332	2:E6	3-L5
=IC700	1:J3	7-A8	P268	1:B2	2-R5	R218	2:C7	2-G8	R334	1:E6	3-L4
IC710	1:H3	7-D7	P270	1:B2	2-R5	&R219	2:C7	2-G7	R336	2:E6	3-M4
IC710	1:H3	7-J0	P280	1:B2	2-R4	R221	2:C7	2-H7	R337	2:E4	3-M5
IC710	1:H3	7-C6	P282	1:B2	2-R4	R222	2:C7	2-H7	R338	2:F4	3-N6
IC710	1:H3	7-D6	P284	1:B3	2-R4	%R223	2:D6	2-J9	R339	2:E5	3-N5
IC710	1:H3	7-D6	P287	1:B2	2-R0	R224	2:C6	2-J8	R340	2:F5	3-N5
IC710	1:H3	7-C6	P810	1:K2	8-A5	R225	2:C6	2-J8	R341	2:F5	3-Q5
IC710	1:H3	7-E8	P815	1:L4	8-C4	R227	2:B7	2-J7	&R344	2:F5	3-R6
IC740	1:H2	7-D1	P820	1:K4	8-M8	R229	2:C5	2-L6	R346	2:F5	3-R7
IC750	1:H4	7-M3	P825	1:K4	8-M8	R230	2:C6	2-M5	R348	2:E6	3-R5
IC750	1:H4	7-H6	P830	1:K4	8-M8	R232	2:B5	2-M7	%R349	2:E6	3-R4
IC750	1:H4	7-H5	P835	1:K4	8-M7	R233	2:C5	2-M7	R350	2:E5	3-A2
IC820	1:L4	8-N5	P840	1:K4	8-M7	R234	2:C5	2-N7	R351	2:E6	3-A2
IC830	1:N4	8-J0				R236	2:B5	2-N7	R352	2:E5	3-B2
IC830	1:N4	8-F1	PL100	1:P3	1-F0	R238	2:A5	2-R6	R353	2:F4	3-N6
IC830	1:N4	8-F0	PL200	1:A3	2-R7	R239	2:B5	2-R7	R354	2:E5	3-B2
IC830	1:N4	8-H2	PL210	1:C6	2-B8	R241	2:D8	2-F5	R356	2:F4	3-C2
IC830	1:N4	8-E2	PL220	1:C6	2-H7	R242	2:C8	2-F4	R358	2:F3	3-D3
IC840	1:M2	8-L0	PL230	1:B2	2-L8	R244	2:C8	2-G4	R360	2:F3	3-D2
IC850	1:M3	8-N1	PL240	1:B6	2-K7	R245	2:C8	2-G5	R362	2:E4	3-D1
IC850	1:M3	8-M2	PL250	1:C8	2-C2	R247	2:B7	2-J4	R364	2:F3	3-D1
IC850	1:M3	8-Q2	PL260	1:C8	2-H3	R249	2:B6	2-J3	R365	2:E5	3-Q4
IC850	1:M3	8-M0	PL270	1:C2	2-L1	R251	2:B7	2-L3	R366	2:F3	3-D2
IC850	1:M3	8-M2				R252	2:B7	2-L3	R367	2:E5	3-Q4
			Q210	2:C6	2-J8	R254	2:B7	2-L3	R368	2:E4	3-E1
L230	1:D2	2-K2	Q220	2:C5	2-M6	R255	2:B6	2-M3	R370	2:E3	3-E2
L310	1:F8	3-D9	Q230	2:C5	2-N6	R256	2:B6	2-M3	R372	2:E3	3-F3
L320	1:F8	3-E8	Q240	2:C8	2-H4	R258	2:B6	2-N3	R374	2:E4	3-F2
L330	1:E8	3-B5	Q245	2:B6	2-J4	R260	2:B5	2-P2	R376	2:E4	3-F1
L340	1:E8	3-C5	Q250	2:B8	2-G2	R261	2:B4	2-Q3	R378	2:E3	3-G3
L350	1:E7	3-D5	Q255	2:B7	2-H2	R262	2:B3	2-Q3	R380	2:E4	3-G2
L360	1:F6	3-G5	Q260	2:B7	2-K0	R264	2:B8	2-A3	R382	2:E4	3-H2
L370	1:E7	3-J5	Q270	2:C2	2-K0	R265	2:B8	2-A2	R384	2:E4	3-H2
L380	1:E6	3-L6	Q280	2:B7	2-L2	R266	2:B8	2-B2	R386	2:E5	3-L3
L385	1:E4	3-M6	Q290	2:B6	2-M2	R267	2:C8	2-C3	R388	2:E5	3-L3

Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit
R390	1:E5	3-L2	R769	1:H3	7-K3	R877	1:M2	8-K1	TP310	1:E7	3-E5
R392	2:E5	3-L2	R771	1:H4	7-L3	R878	1:M2	8-K0	TP311	1:E4	3-M6
R393	2:E5	3-P3	R772	1:G4	7-L2	R879	1:M2	8-K0	TP313	1:E4	3-J2
R394	2:E5	3-M2	R774	1:H4	7-L2	R881	1:M4	8-K2	TP314	1:E5	3-R5
R395	2:F3	3-N2	R775	1:H4	7-N2	R882	1:M4	8-L3	TP408	2:N8	4-B5
R396	2:E3	3-P2	R780	1:G2	7-P1	R884	1:M3	8-N3	TP409	2:L7	4-D5
R397	2:E3	3-Q2	R782	1:G3	7-P0	R885	1:M3	8-N2	TP410	2:J8	4-J5
R398	2:E3	3-Q1	R784	1:G3	7-P1	R886	1:M3	8-P3	TP411	2:H8	4-M5
R399	1:E3	3-P1	R785	1:G3	7-Q1	R887	1:M3	8-P3	TP412	1:G8	4-Q5
R405	2:N8	4-B5	R786	1:G2	7-R1	R888	1:M3	8-P2	TP601	1:N5	6-K9
R410	2:L8	4-E5	R787	1:G2	7-R1	R889	1:M3	8-M1	TP602	1:L6	6-R9
R415	2:L8	4-F4	R790	1:G3	7-P0	R890	1:M3	8-N1	TP603	1:L5	6-J2
R420	2:L8	4-G4	R791	1:G3	7-Q0	R891	1:M2	8-M1	TP604	1:L4	6-N6
R425	2:L8	4-G5	R804	1:J3	8-C7	R892	1:M2	8-N0	TP607	1:L4	6-F9
R430	2:L8	4-G6	R805	1:J3	8-C7	R894	1:M2	8-P0	TP710	1:H4	7-J5
R435	2:M7	4-G6	R808	1:K2	8-B6	R895	1:M2	8-Q1			
R440	2:K8	4-J5	R809	1:K2	8-C6	R897	1:M2	8-Q1	X310	1:F4	3-M6
R445	2:H8	4-N4	R810	1:L2	8-D6	R898	1:M2	8-Q2			
R450	2:H8	4-N5	R811	1:L2	8-D6				&XF300A	1:E8	3-C5
R455	2:H8	4-N4	R812	1:K2	8-C6	RL210	1:C2	2-P4	&XF300B	1:E8	3-D5
R460	2:G7	4-P6	R813	1:K2	8-C5	RL210	1:C2	2-K1	&XF301	1:E7	3-J5
R465	2:G7	4-P6	R815	1:K2	8-E4	RL210	1:C2	2-P5	&XF302	1:F5	3-P5
R470	2:G7	4-P6	R816	1:K2	8-F4						
R475	2:G7	4-P4	R818	1:K2	8-F5	RV205	1:B5	2-M7			
R510	1:K6	5-J9	R819	1:L2	8-F5	RV210	1:B7	2-K3			
R515	1:H6	5-J5	R820	1:K4	8-B4	RV220	1:D7	2-F5			
R555	1:K5	5-K1	R821	1:L4	8-C4	RV230	1:B8	2-A2			
R615	1:M5	6-C9	R822	1:L4	8-D3	RV235	1:C4	2-C0			
R617	1:M5	6-F8	R823	1:L4	8-D4	RV310	1:F4	3-E1			
R619	1:M6	6-L8	R824	1:K4	8-L8	RV320	1:E3	3-Q2			
R621	1:M6	6-L8	R825	1:K4	8-L8						
R625	1:N6	6-L7	R826	1:K4	8-L8	SHLD610	1:L6	6-J3			
R629	1:M5	6-P6	R827	1:K4	8-L7						
R633	1:M5	6-Q8	R828	1:K4	8-L7	SK320	1:E5	3-L1			
R636	1:N5	6-K6	R829	1:K4	8-P9	SK330	1:E3	3-Q1			
R637	1:N5	6-K5	R830	1:K3	8-P9	SK501	1:G6	5-D6			
R641	1:N5	6-L4	R831	1:K3	8-P9	SK502	1:G6	5-D5			
R645	1:N5	6-L5	R832	1:K3	8-P8	SK503	1:G6	5-D4			
R649	1:M5	6-M5	R833	1:K3	8-P8	SK504	1:G5	5-D3			
R653	1:M5	6-Q4	R835	1:K3	8-P8	SK505	1:G5	5-D2			
R681	1:L5	6-L2	R836	1:K3	8-P8	SK513	1:H5	5-G3			
R685	1:L5	6-N2	R837	1:K3	8-P7	SK522	1:H6	5-K5			
R689	1:L6	6-Q3	R840	1:K3	8-P7	SK531	1:K6	5-N6			
R693	1:L6	6-Q1	R841	1:K3	8-P7	SK532	1:K5	5-N5			
R696	1:L6	6-Q1	R842	1:K3	8-P6	SK533	1:K5	5-N4			
R701	1:J4	7-A9	R843	1:K3	8-P6	SK534	1:K5	5-N3			
R702	1:J4	7-C9	R844	1:L2	8-M5	SK535	1:K5	5-N2			
R703	1:J4	7-C8	R845	1:L2	8-M5	SK805	1:K3	8-Q9			
R706	1:J3	7-B6	R846	1:L4	8-L6	SK805	1:K3	8-Q9			
R707	1:J3	7-C7	R847	1:L4	8-M6	SK805	1:K3	8-Q7			
R708	1:J2	7-D7	R848	1:L4	8-Q5	SK805	1:K3	8-Q8			
R709	1:H2	7-E7	R849	1:J2	8-Q5	SK805	1:K3	8-Q6			
R710	1:J3	7-B6	R850	1:J2	8-Q4	SK805	1:K3	8-Q8			
R711	1:H3	7-B6	R851	1:L4	8-Q4	SK805	1:K3	8-Q6			
R712	1:J4	7-E9	R852	1:L2	8-N4	SK805	1:K3	8-Q8			
R742	1:H2	7-B4	R853	1:L2	8-Q4	SK805	1:K3	8-Q7			
R743	1:H2	7-C5	R854	1:N3	8-C1	SK805	1:K3	8-Q8			
R744	1:G2	7-D4	R855	1:N3	8-C2	SK805	1:K3	8-Q7			
R746	1:H3	7-E4	R856	1:N3	8-D2	SK805	1:K3	8-Q5			
R747	1:H3	7-E5	R857	1:N4	8-D2	SK805	1:K3	8-Q7			
R748	1:J2	7-A1	R858	1:N3	8-C0	SK805	1:K3	8-Q6			
R749	1:J2	7-B1	R859	1:N3	8-D0	SK805	1:K3	8-Q9			
R750	1:H4	7-H7	R860	1:N3	8-E0	SK805	1:K3	8-Q6			
R752	1:G4	7-F5	R861	1:M3	8-F0	SK810	1:L3	8-H5			
R753	1:G4	7-F3	R863	1:N3	8-F2						
R754	1:G3	7-F3	R865	1:M3	8-G2	SL210	2:B8	2-E2			
R756	1:G3	7-G5	R866	1:M3	8-H2	SL220	2:B8	2-D2			
R757	1:G4	7-H4	R867	1:M3	8-G1						
R758	1:H3	7-H4	R868	1:N4	8-G0	SW201	1:B4	2-A6			
R759	1:H3	7-J4	R869	1:M3	8-G0						
R760	1:H3	7-K4	R870	1:M3	8-H0	T210	1:C3	2-Q2			
R762	1:H3	7-K4	R871	1:N3	8-H0	T610	1:L6	6-N2			
R763	1:H4	7-L4	R872	1:N4	8-H0						
R765	1:H3	7-H2	R873	1:N4	8-K0	TP201	1:D3	2-P8			
R766	1:G3	7-J3	R875	1:M4	8-J1	TP202	1:D7	2-D9			
R767	1:H3	7-K2	R876	1:M3	8-K1	TP309	1:E9	3-A5			

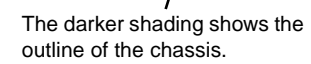


Key

33
2

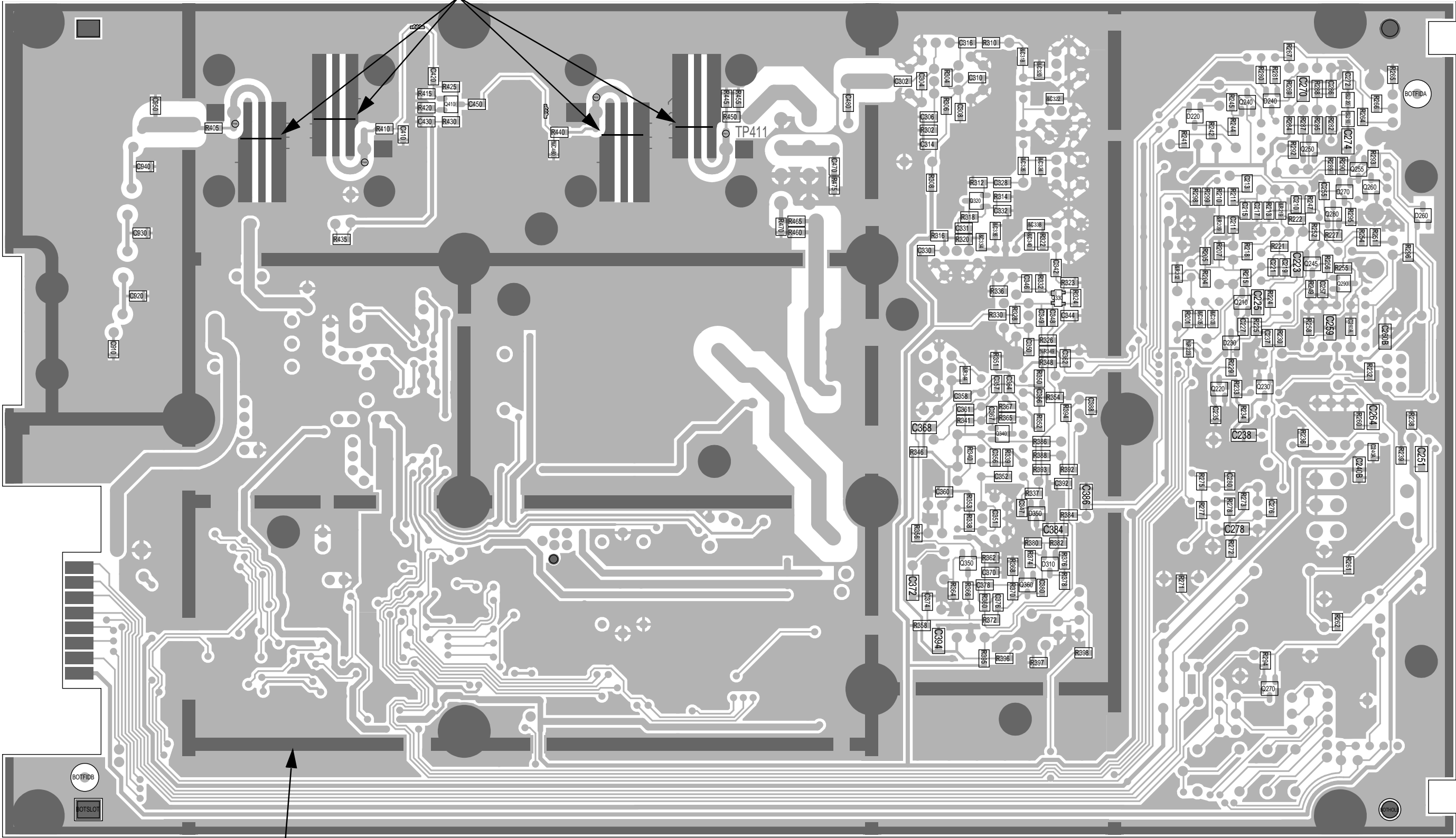
The upper number is the component identification number which appears in the "Legend" column of the Mechanical & Miscellaneous Parts on the facing page.

The lower number indicates how many of this component are used in this location or function.



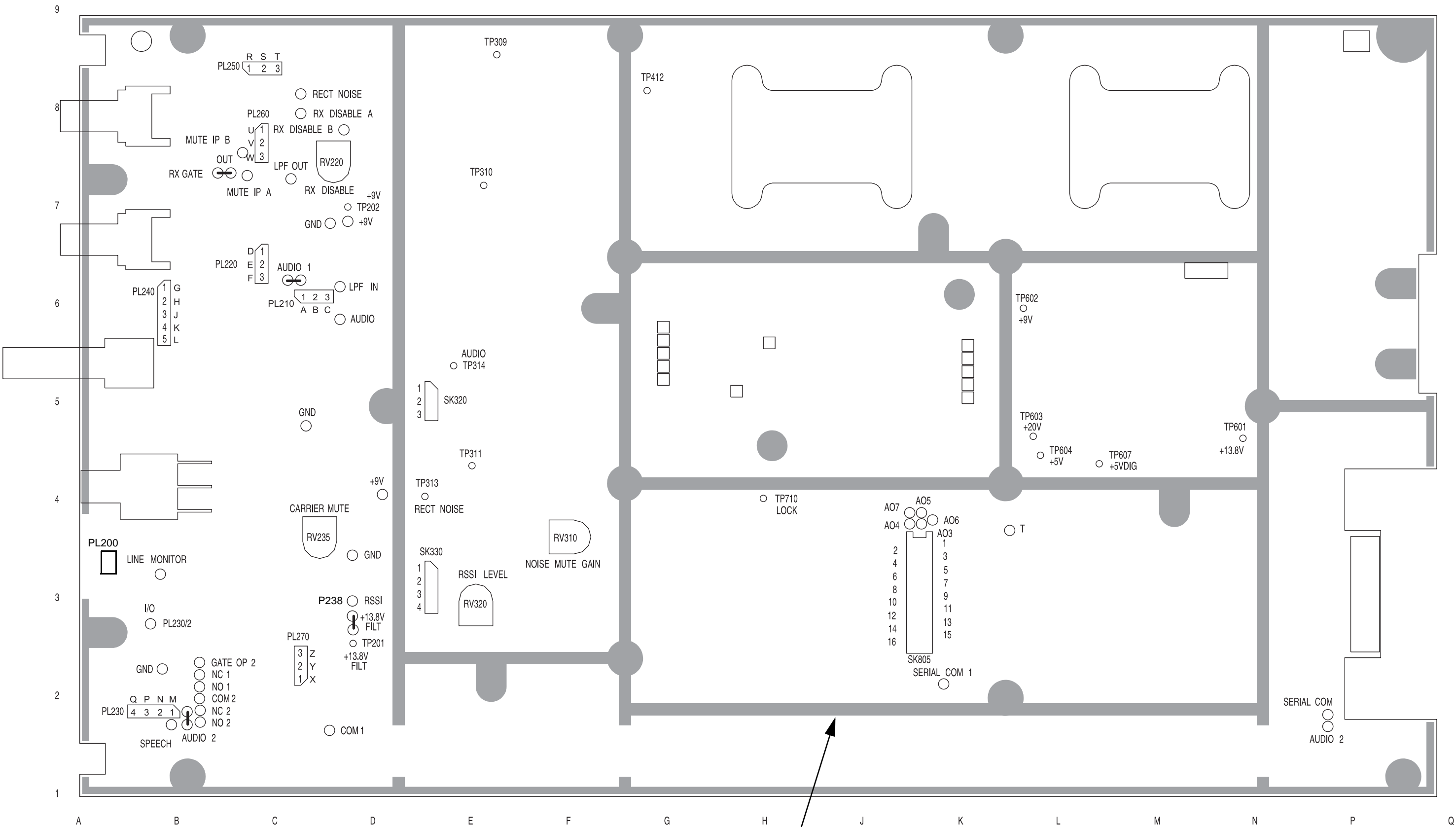
31/01/99

These link wires are positioned according to frequency range and should not be moved as their position is optimised in the factory.

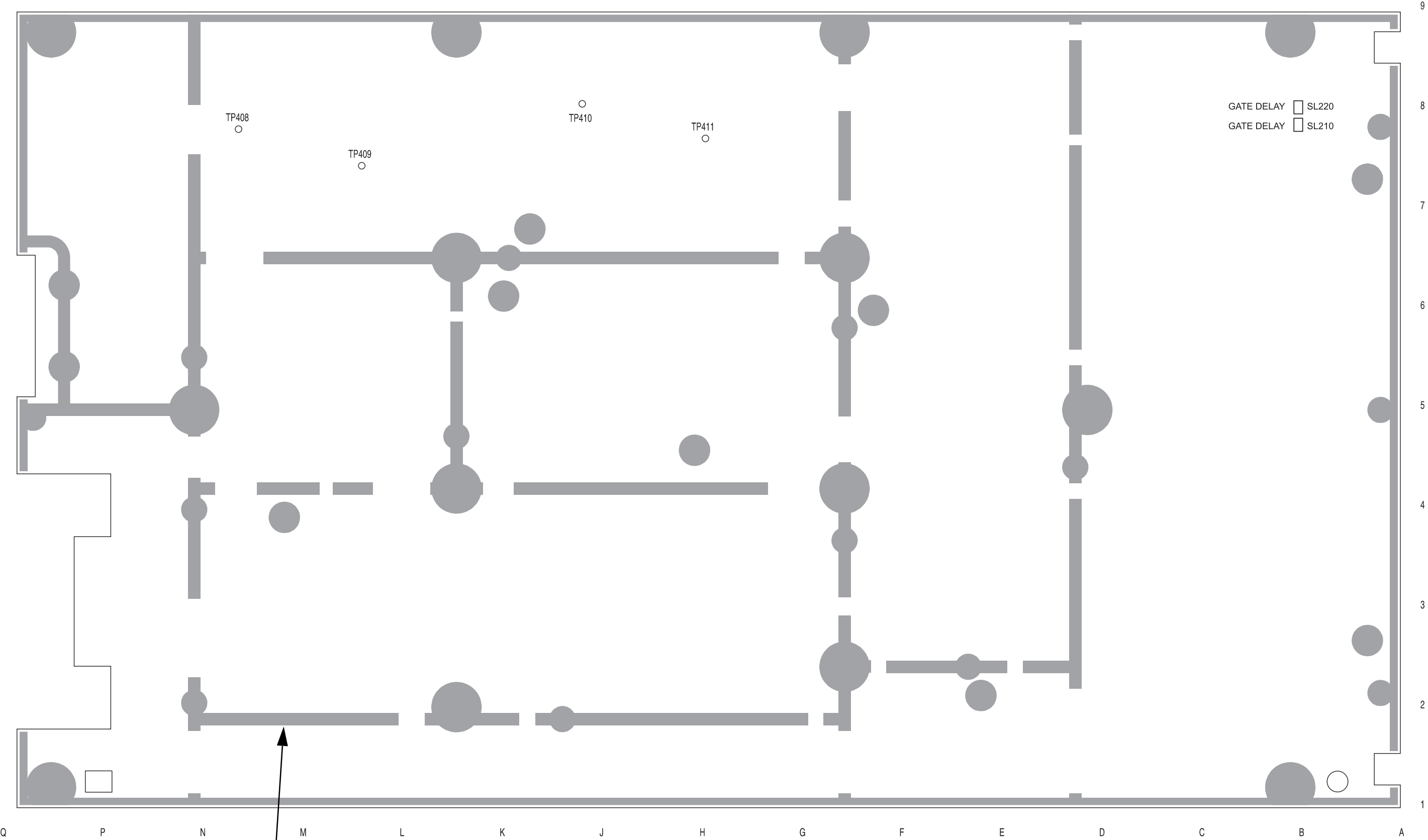


The darker shading shows the footprint of the bottom cover.

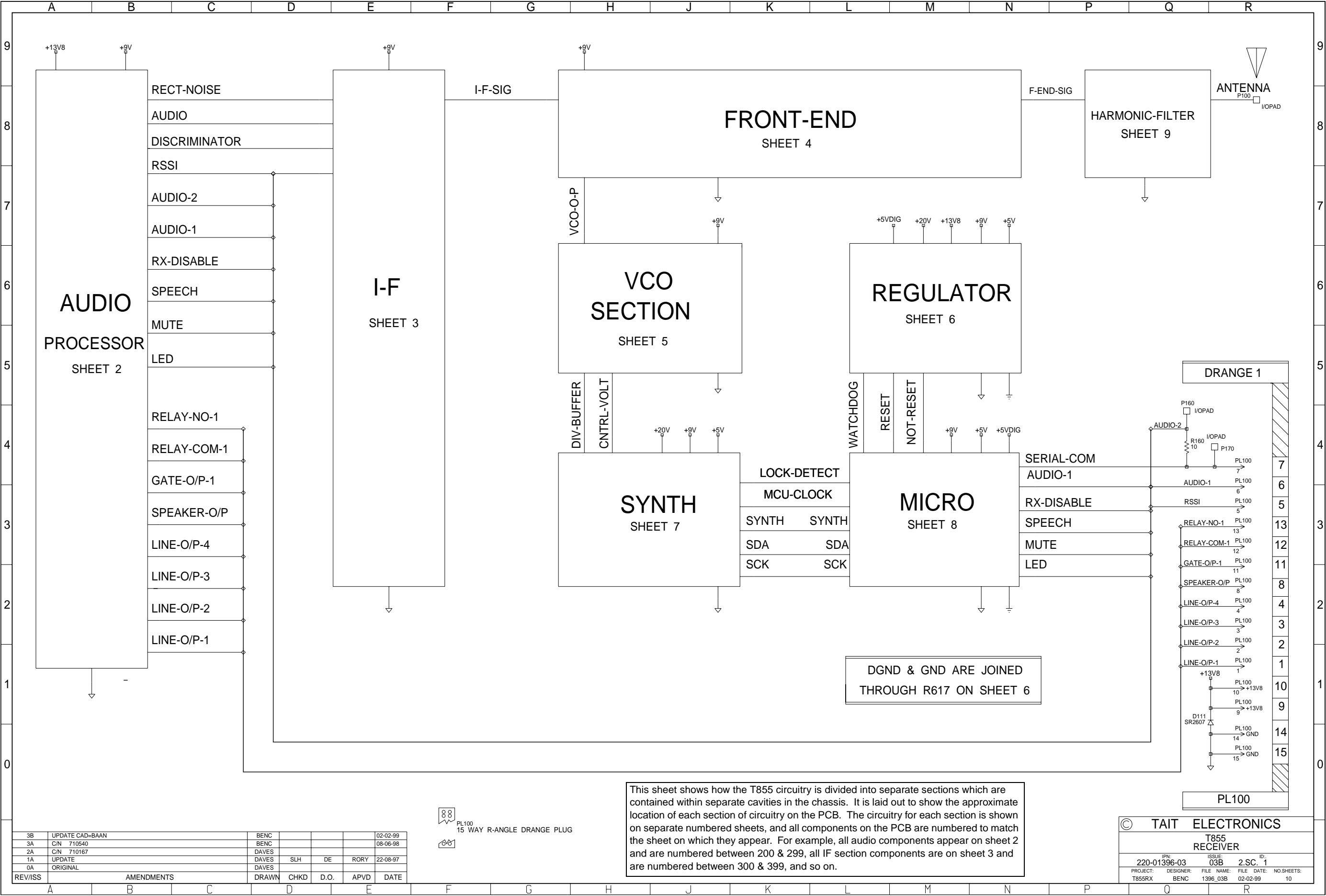
T855 PCB Layout - Bottom Side
220-01396-03

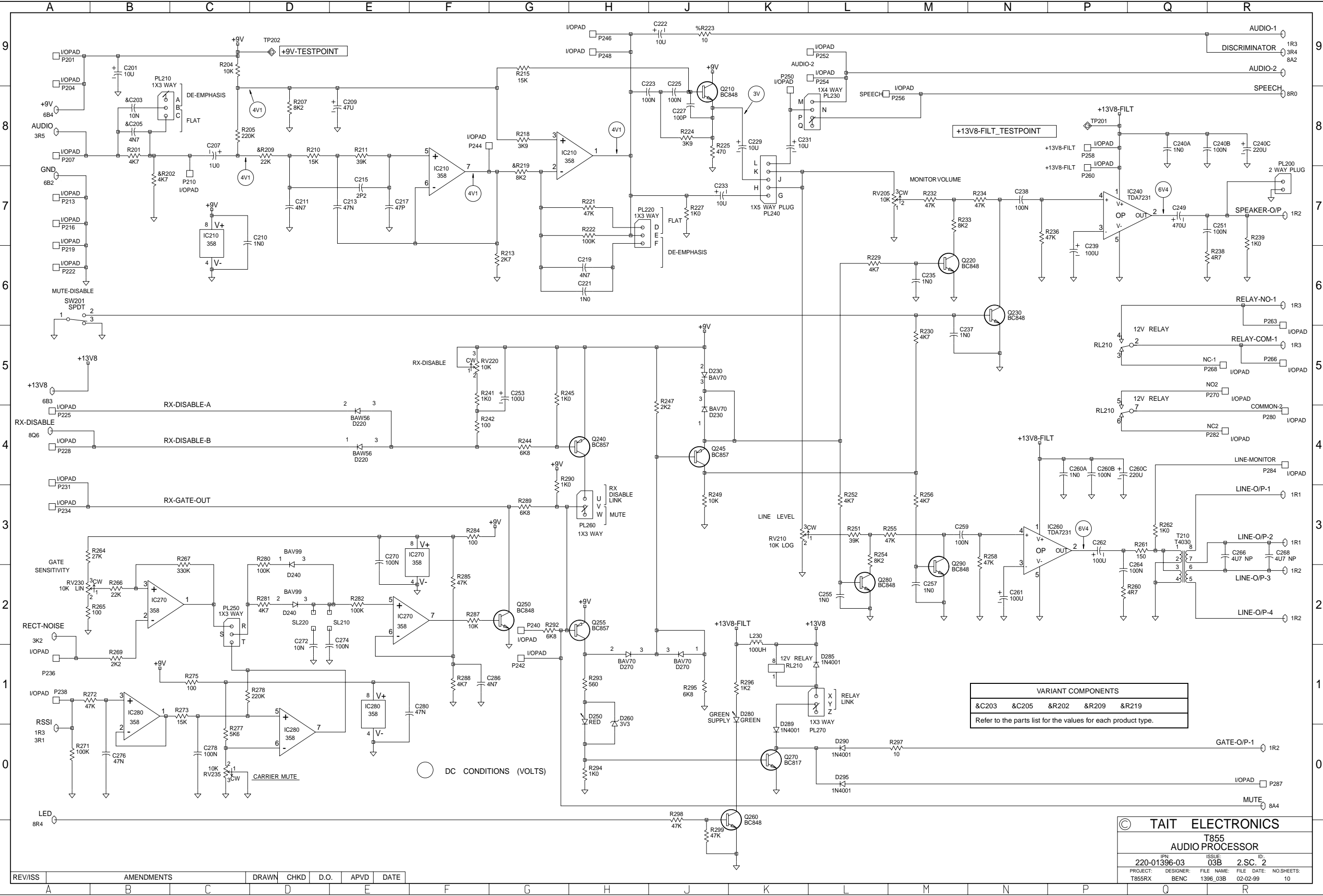


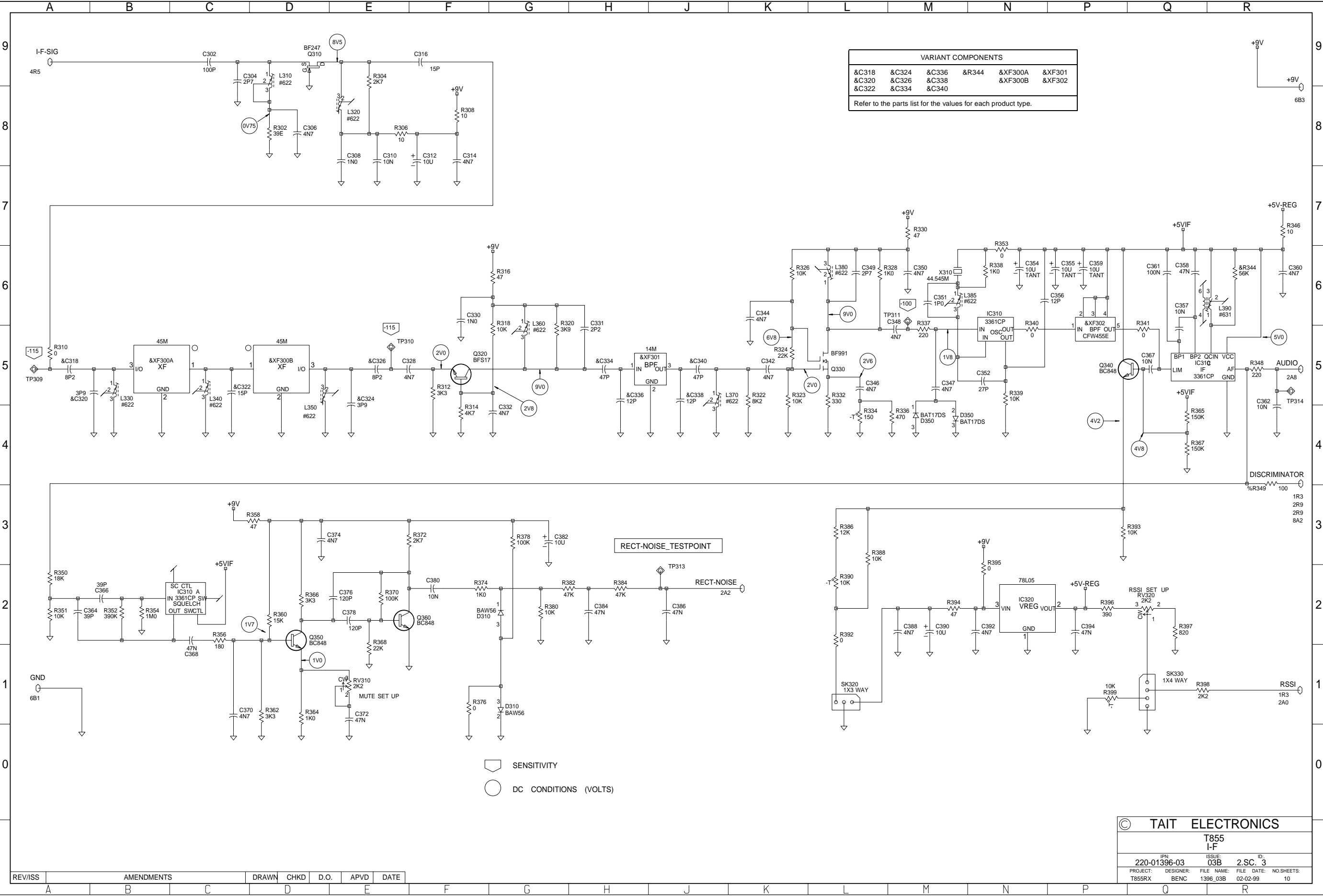
The darker shading shows the
outline of the chassis.

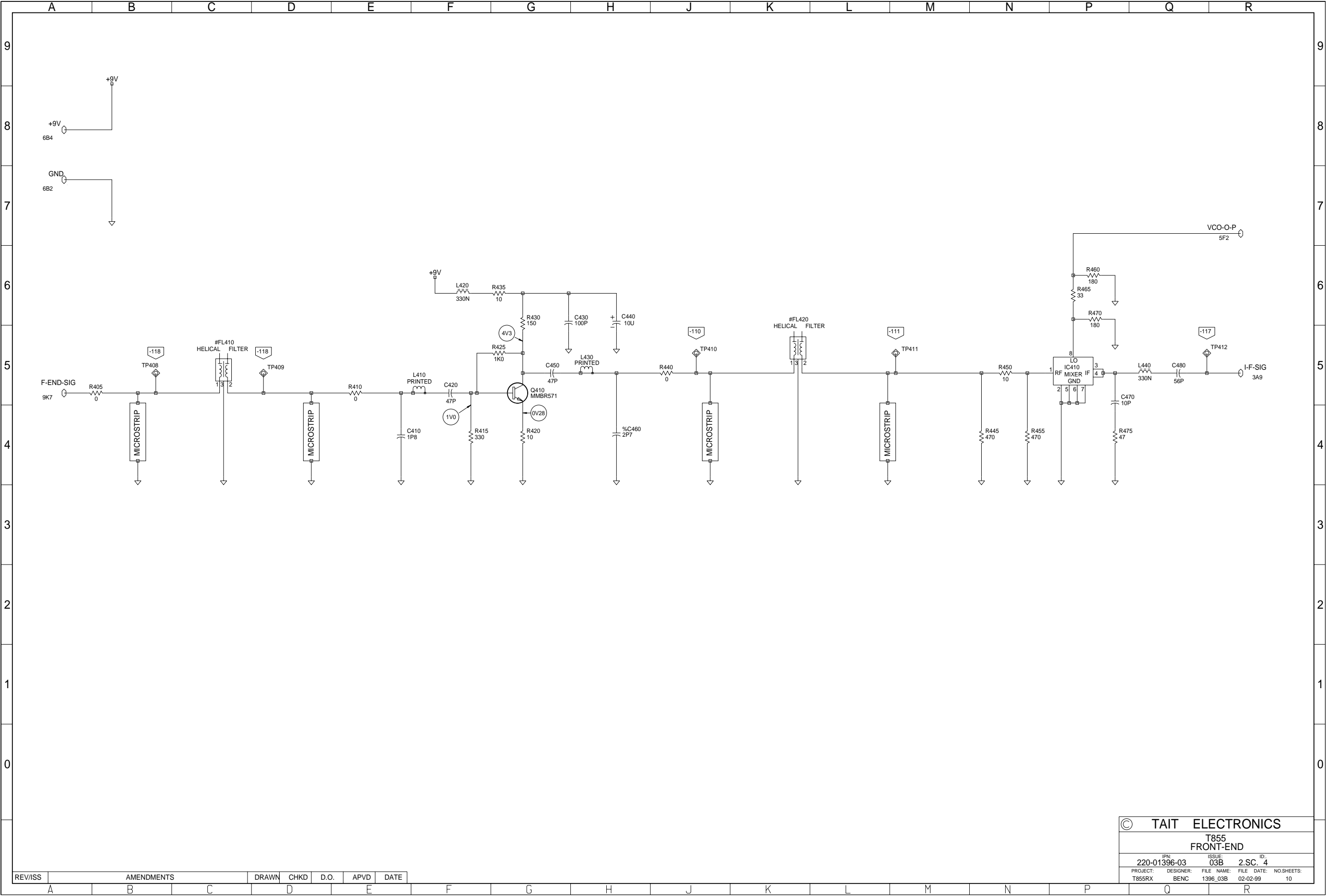


T855 Test Points & Options Connections - Bottom Side
220-01396-03



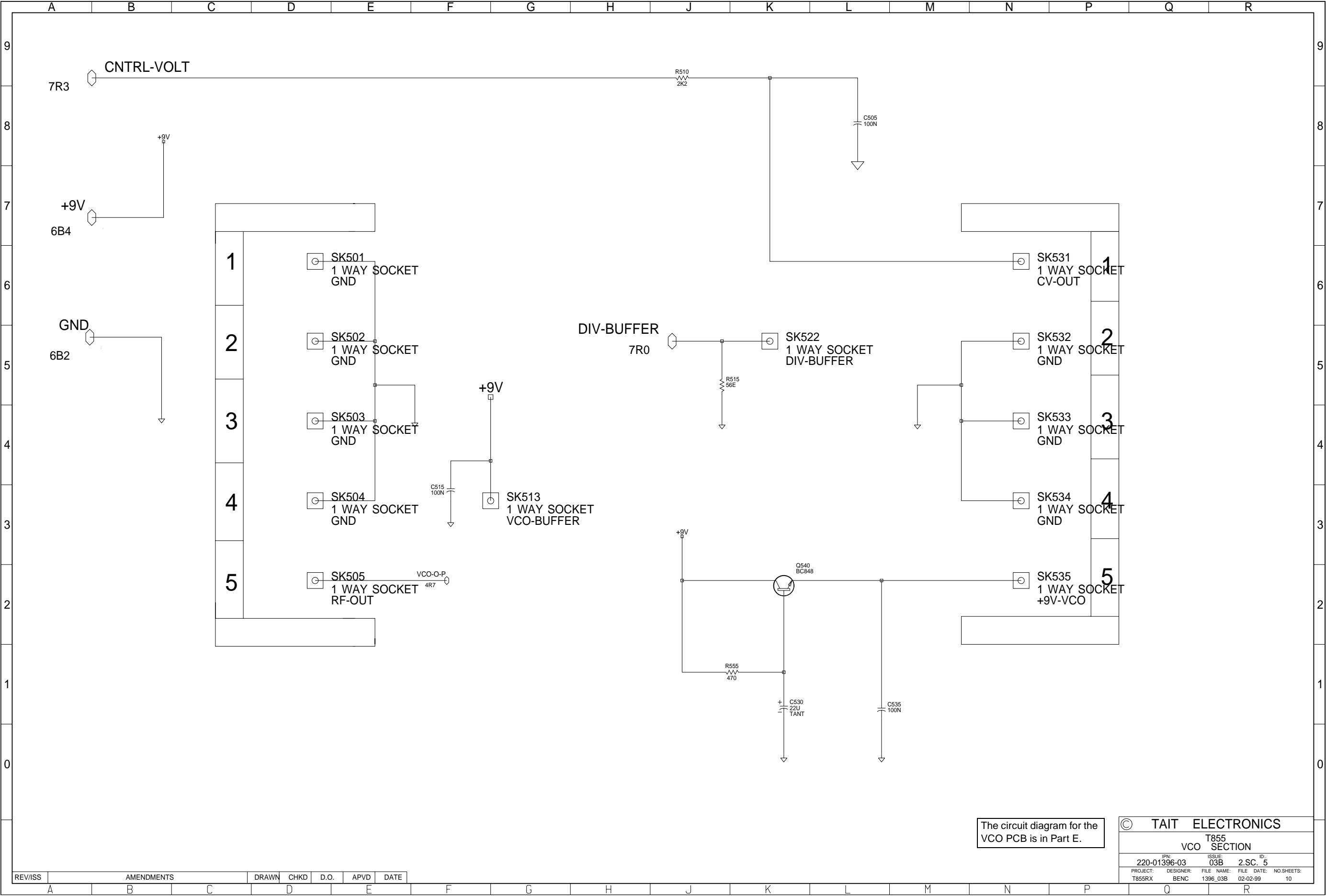


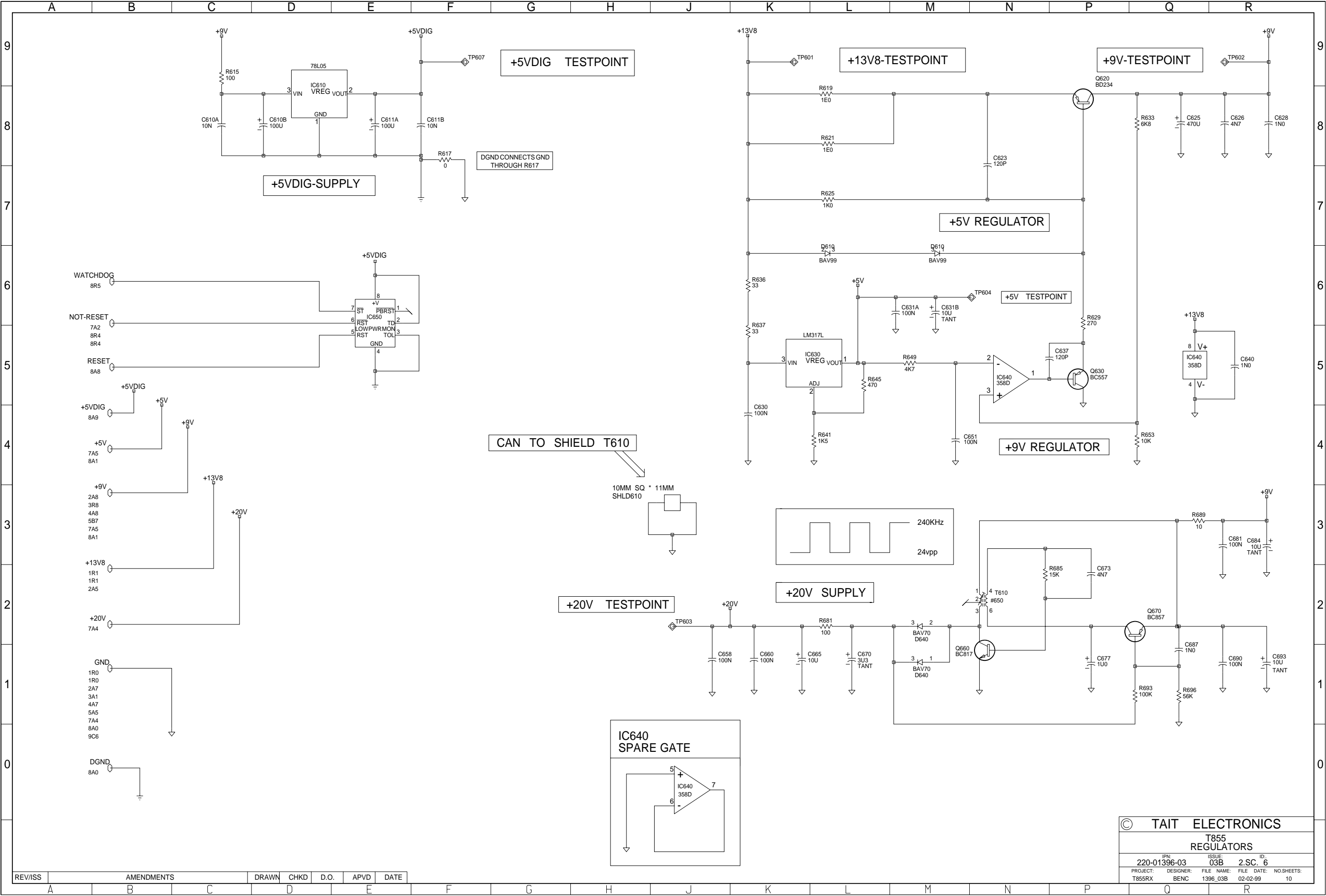


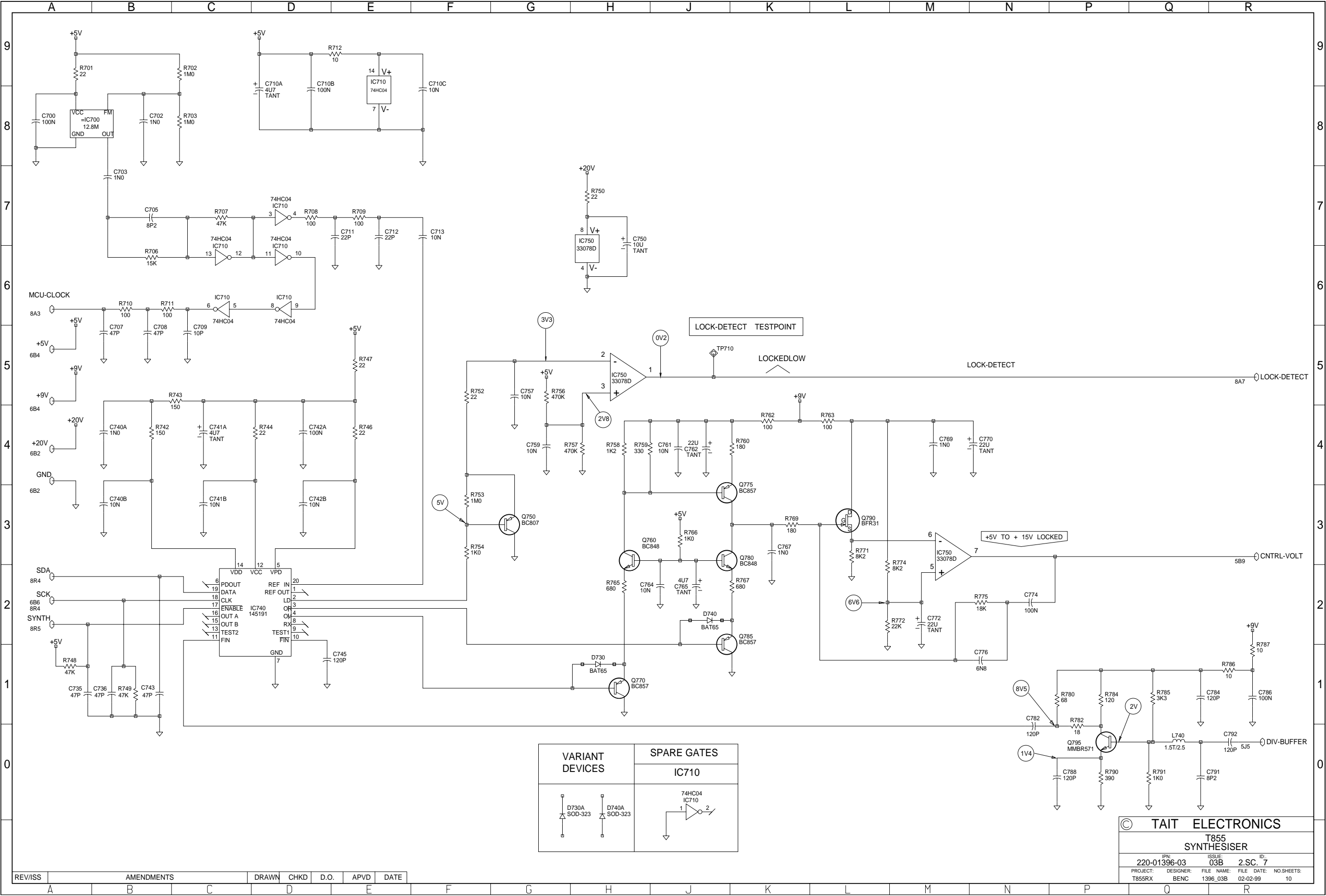


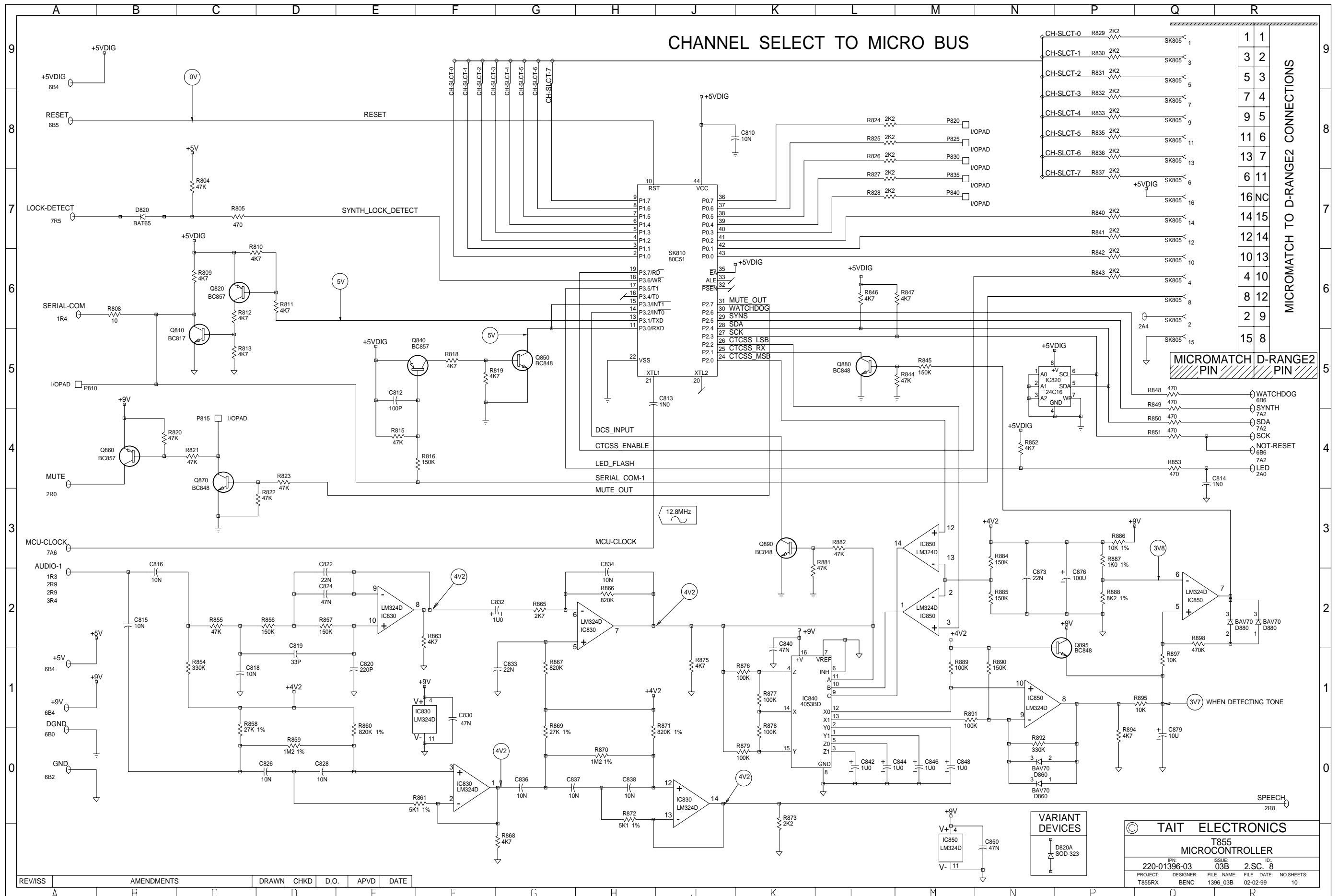
REV/ISS	AMENDMENTS	DRAWN	CHKD	D.O.	APVD	DATE
A						
B						
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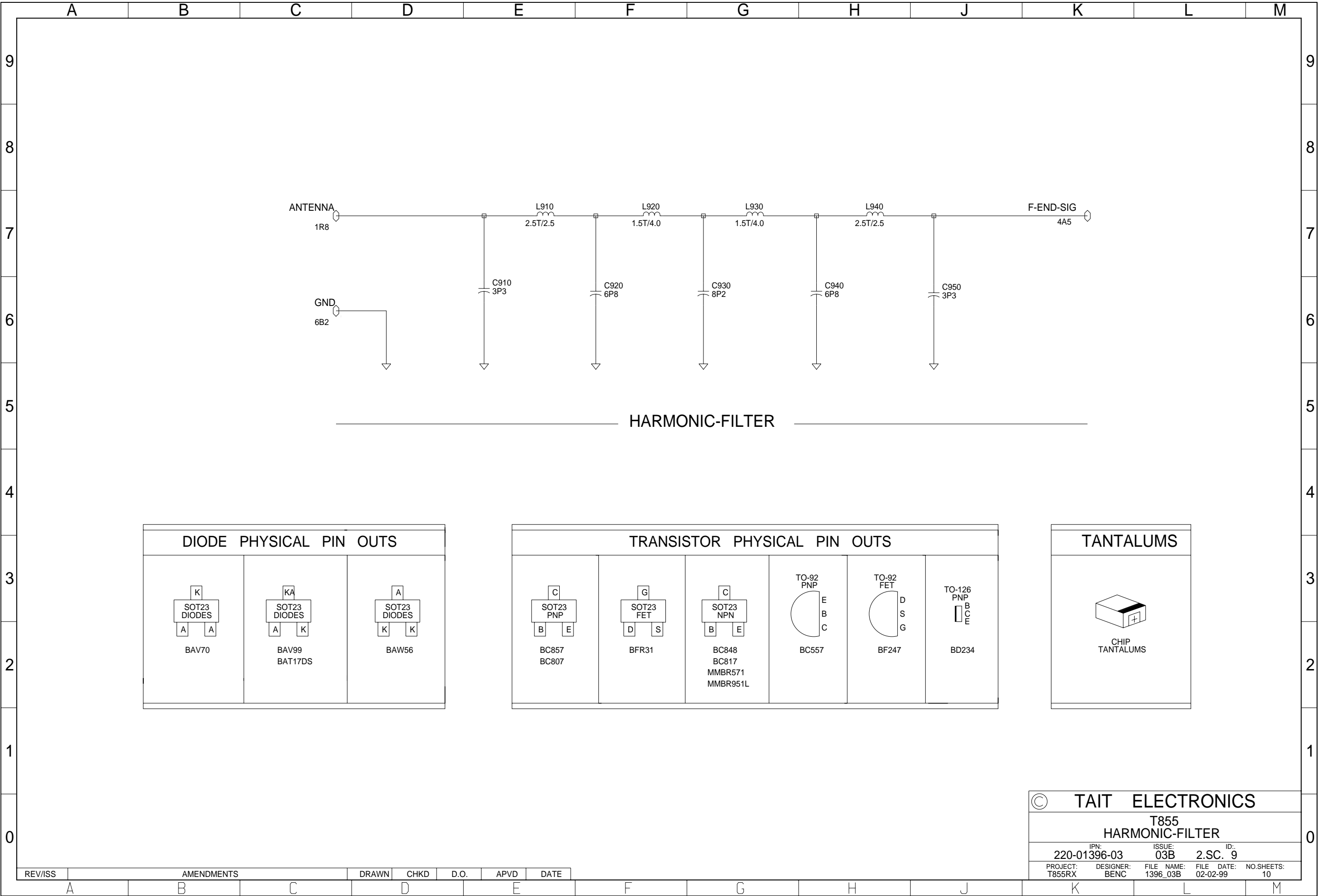
© TAIT ELECTRONICS			
T855 FRONT-END			
IPN: 220-01396-03	ISSUE: 03B	ID: 2.SC. 4	
PROJECT: T855RX	DESIGNER: BENC	FILE NAME: 1396_03B	FILE DATE: 02-02-99
		NO. SHEETS: 10	











TRANSISTOR PHYSICAL PIN OUTS

C

SOT23
PNP

B

E

BC857
BC807

G

SOT23
FET

D

S

BFR31

C

SOT23
NPN

B

E

BC848
BC817
MMBR571
MMBR951L

TO-92
PNP

E

B

C

BC557

TO-92
FET

D

S

G

BF247

TO-126
PNP

B

C

E

BD234

TANTALUMS

CHIP
TANTALUMS

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T855
HARMONIC-FILTER

IPN: 220-01396-03 ISSUE: 03B ID: 2.SC. 9

PROJECT: T855RX DESIGNER: BENC FILE NAME: 1396_03B FILE DATE: 02-02-99 NO.SHEETS: 10

REV/ISS

AMENDMENTS

DRAWN

CHKD

D.O.

APVD

DATE

