



Service Manual

circuit diagram

Amplifier

Champ2.250

Champ2.350

Champ2.500

Champ4.120

Champ4.250X

Zeck Audio
Service department
Turnhallenweg 6
D-79183 Waldkirch
Germany

Phone: +49-(0)7681-2004-18
Fax: +49-(0)7681-2004-972
email: support@zeck-audio.de
www: www.zeck-support.de

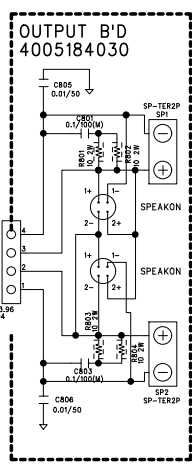
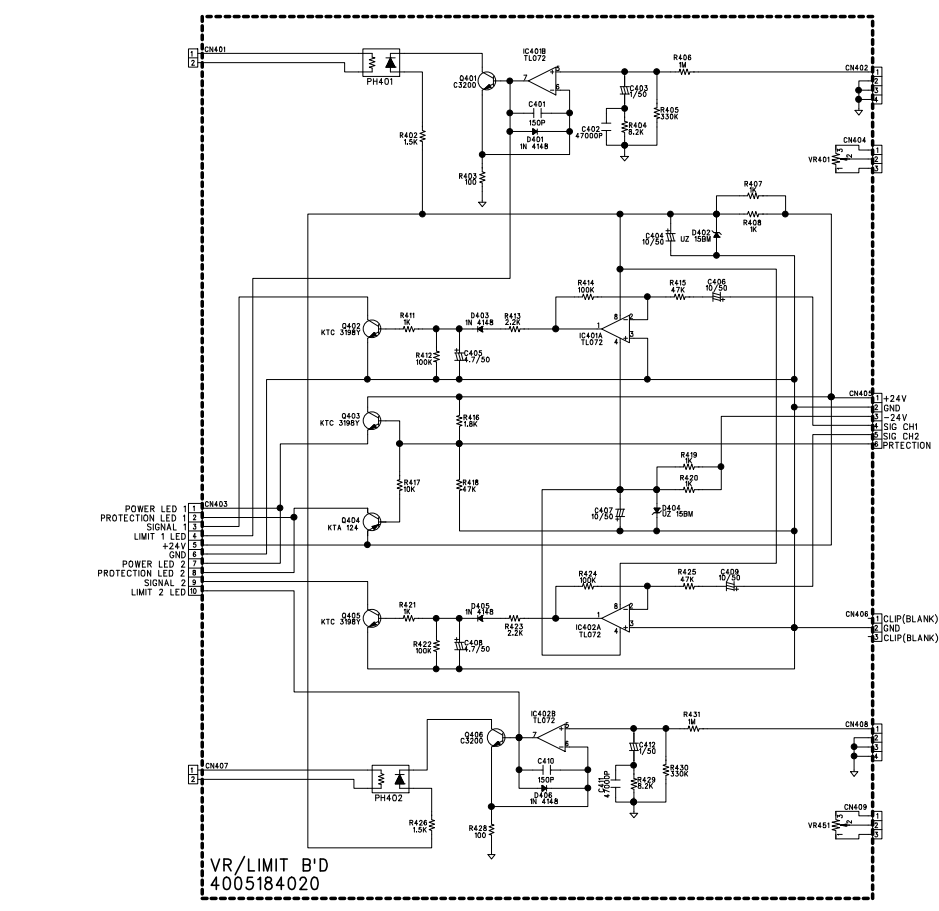
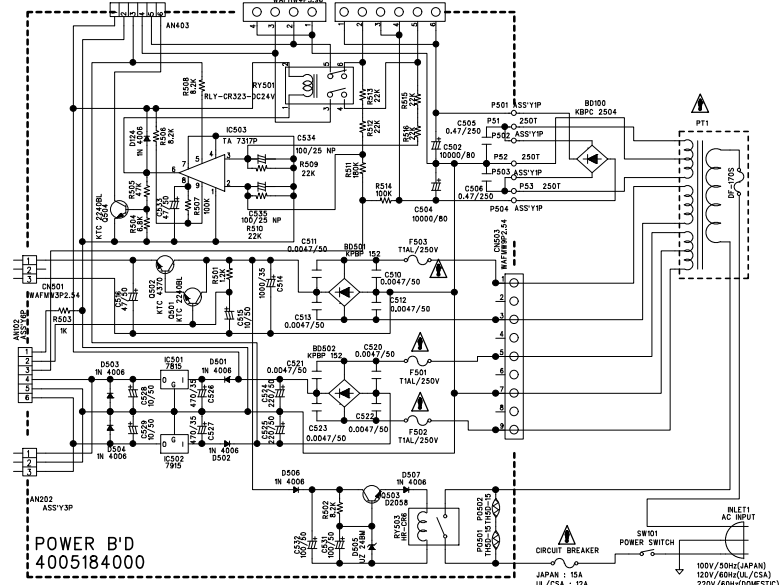
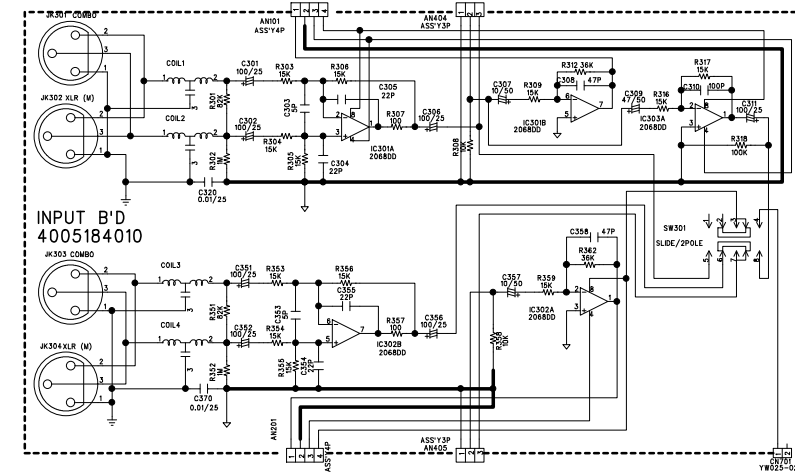
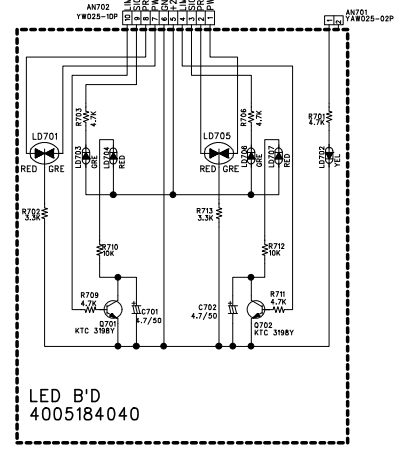
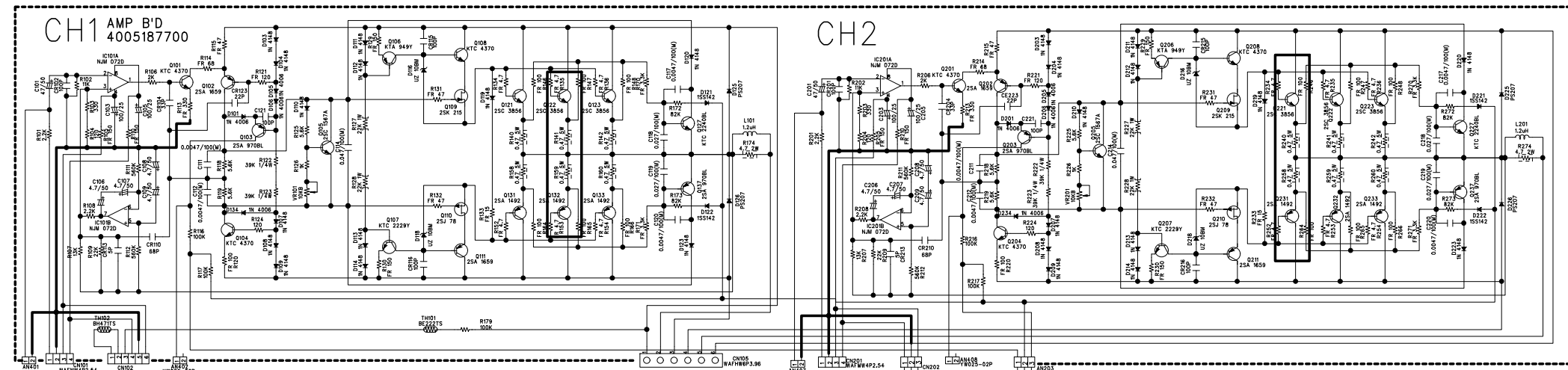
This manual has been provided for the use of authorized service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Zeck Products, are already known and understood by the users.

- Warning:** Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Zeck product owners that all service required should be performed by qualified service personnel.
Static discharge can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit.
- Important:** Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.
- Safety related component warning:** Components identified by mark "!" on the schematic diagrams and in the parts list are critical to safe operation. Replace these components with Zeck original parts only.
-

Dieses Service-Manual ist für den Gebrauch durch autorisiertes Service-Personal bestimmt. Es wird vorausgesetzt, daß der Benutzer über grundlegende und industrieübliche Kenntnisse im Elektronik-Service verfügt und insbesondere mit der Technik von Zeck-Produkten vertraut ist.

- Warnung:** Die Nichtbeachtung von Service- und Sicherheits-Richtlinien kann bei Arbeit an diesem Gerät zu körperlichen Schäden, Zerstörung wertvoller Bauteile und zum Ausfall des Gerätes führen. Aus diesem Grunde empfehlen wir dem Benutzer dringend, alle anfallenden Service-Arbeiten ausschließlich qualifiziertem Personal zu überlassen. Eventuell vorhandene elektrostatische Aufladungen können wertvolle Bauteile zerstören. Vor der Arbeit an dem Gerät sollte der Service-Techniker sich daher durch Berühren des Schaltungs-Nullpunkts des Gerätes von jedweder elektrostatischer Aufladung befreien.
- Wichtig:** Vor Öffnung des Gerätes und während des Auswechslens von Bauteilen muß das Gerät abgeschaltet sein.
- Sicherheitsrelevante Bauteile** Für die Funktion des Gerätes kritische Bauteile sind durch das Symbol "!" im Schaltplan und in der Ersatzteilleiste markiert. Diese Bauteile dürfen nur durch original Zeck-Ersatzteile ersetzt werden.

COMPANY	Zeck	APPLICANT	REVISED NUMBER AND DATE	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
TYPE CODE															
APPROVED DATE															

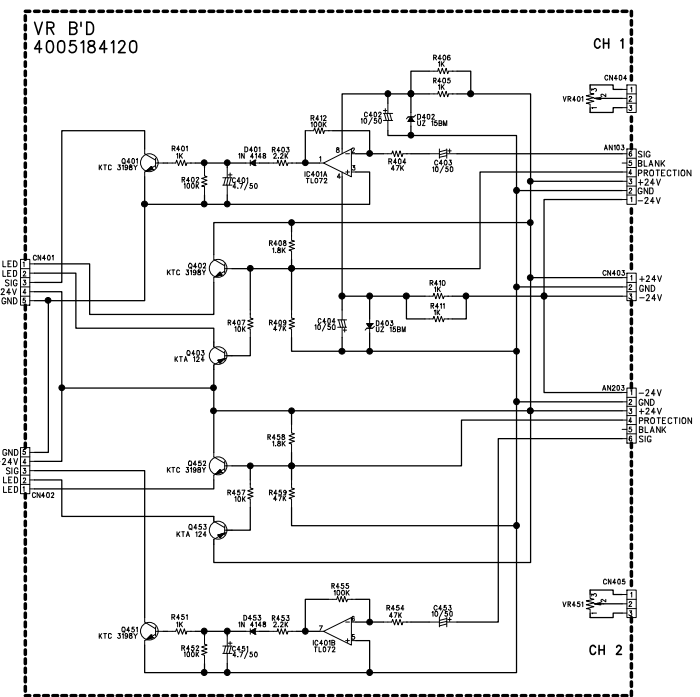
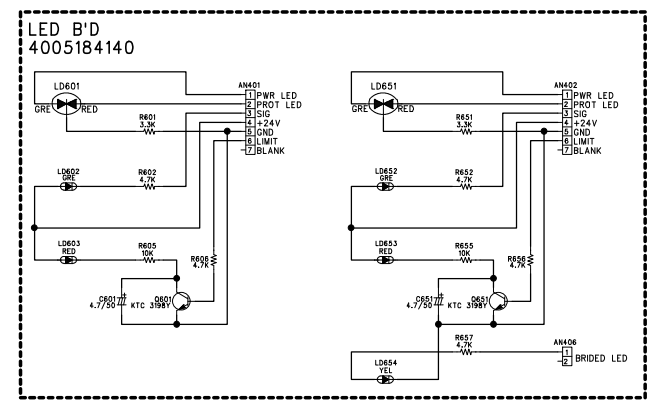
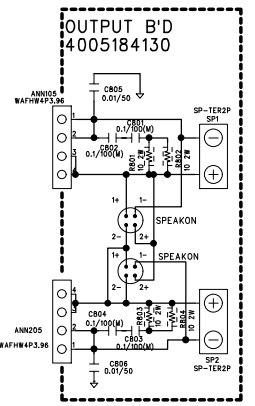
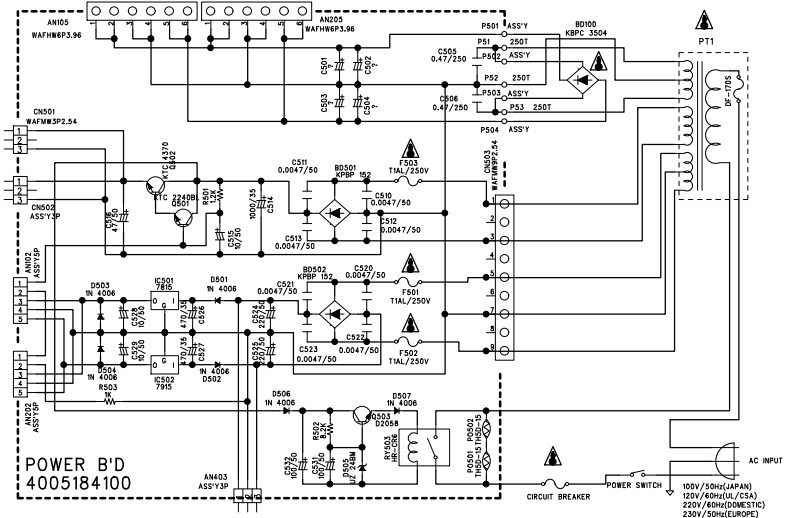
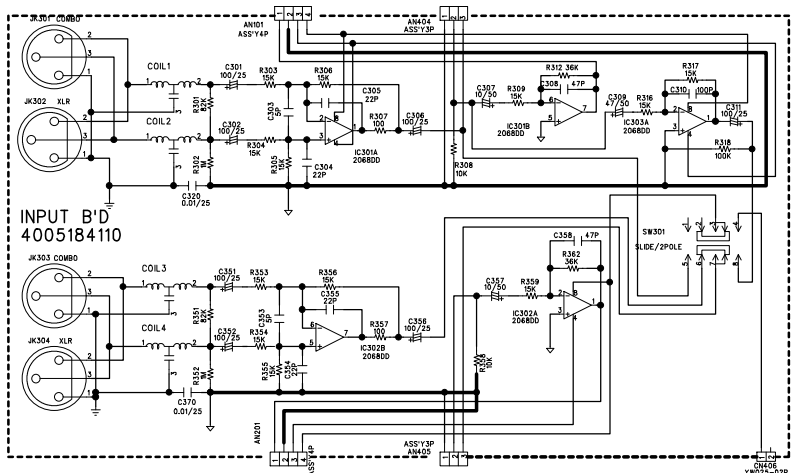
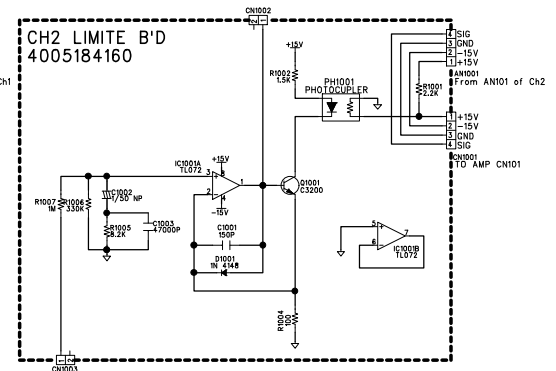
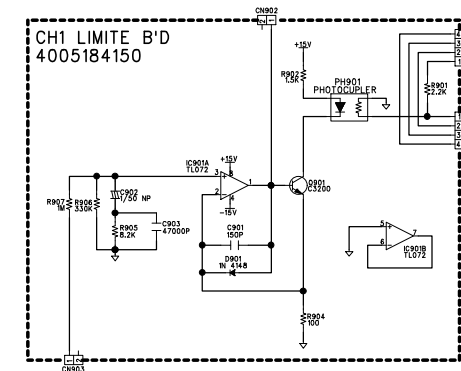
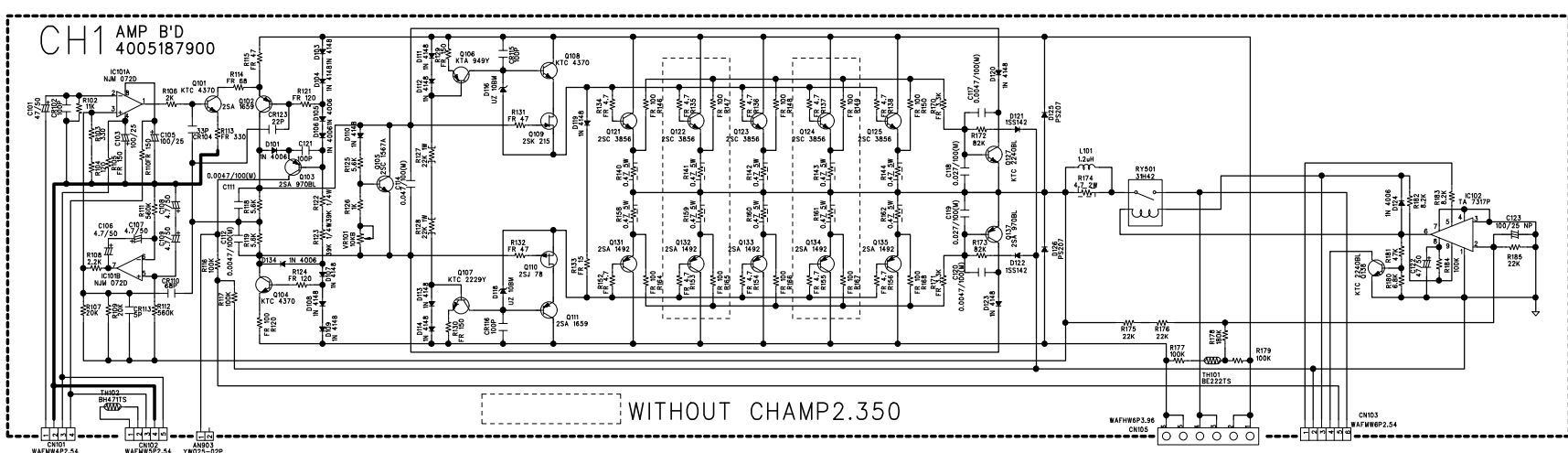


***SERVICE INFORMATION**

- RESISTANCE VALUES ARE INDICATED IN OHMS UNLESS OTHERWISE SPECIFIED.
- CAPACITANCE VALUES ARE SHOWN IN MICROFARADS UNLESS OTHERWISE NOTED. (K=1,000, M=1,000,000)
- ALL VOLTAGES ARE REFERRED TO GROUND UNDER THE FOLLOWING CONDITIONS:
DC:NO SIGNAL EXCEPT WHERE INDICATED.
- AC:RMS

4. - PRECAUTION -

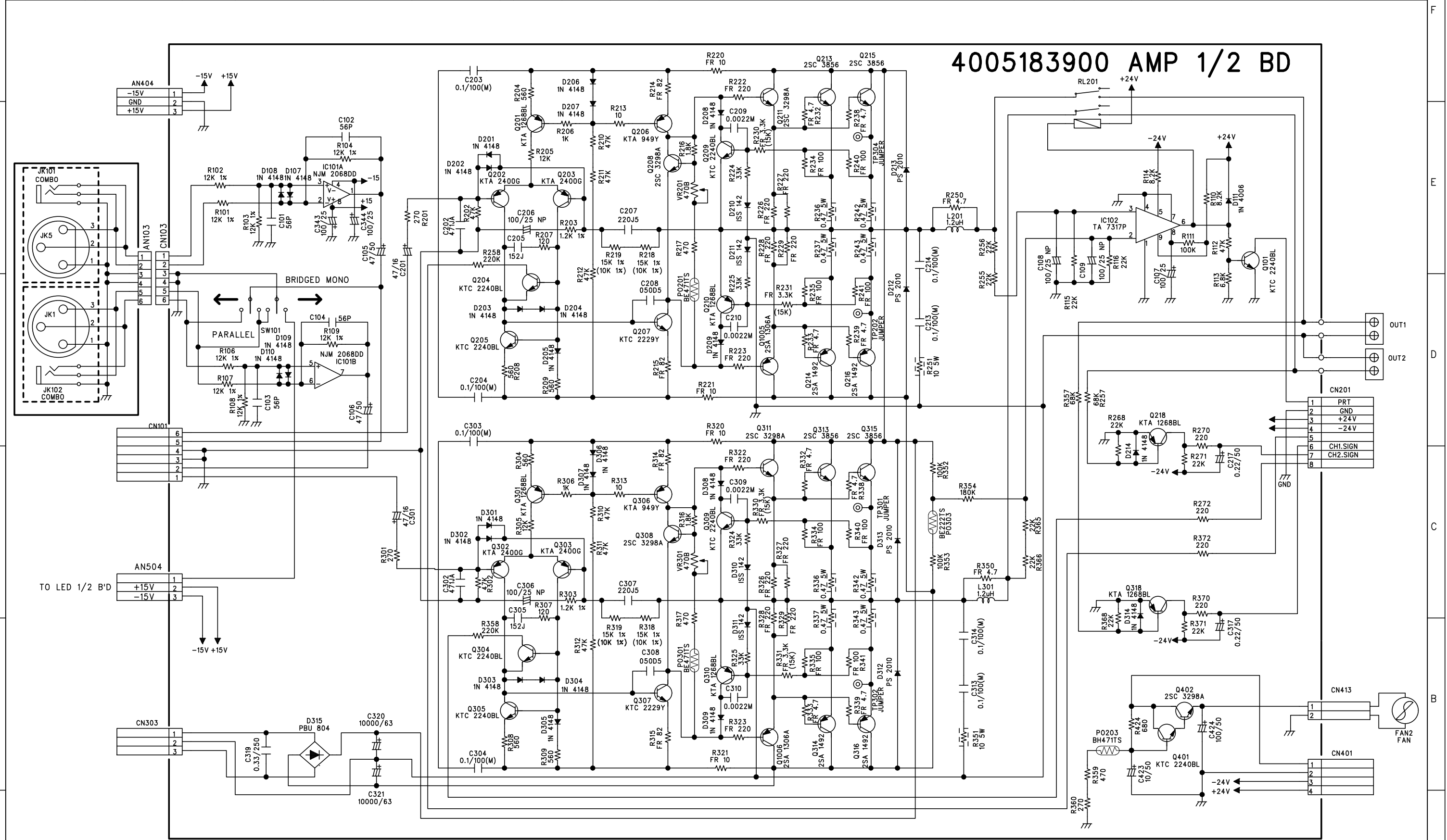
- ALL COMPONENTS MARKED MUST BE REPLACED ONLY WITH ORIGINAL TYPE SPECIFIED BY THE MANUFACTURER. Zeck CORPORATION AND INSTALLED AS THE ORIGINAL SPACE AND POSITIONED AWAY FROM ADJACENT COMPONENTS WHERE APPLICABLE.
- ALL SOLDERING MUST BE DONE IN A PROFESSIONAL MANNER USING SOLDER WHITE RESINE CORE ONLY.
- ALL COVERS, SHIELD AND INSULATING SPACERS MUST BE REPLACED BEFORE RETURNING APPLIANCE TO CUSTOMER.
- DAMAGE POWER SUPPLY CORD MUST BE REPLACED BEFORE RETURNING TO CUSTOMER.
- DIELECTRIC TEST CONSISTING OF 120V AC 60HZ IS TO BE APPLIED BETWEEN BOTH BALDES OF THE POWER SUPPLY CORD ATTACHMENT PLUG THE EXPOSE CONDUCTIVE SURFACE OF THE APPLIANCE FOR A PERIOD OF NOT LESS THAN ONE SECOND BEFORE RETURNING APPLIANCE TO CUSTOMER.
- THE ~~3W~~ MARKED RESISTORS ARE MOUNTED THE P.C.B ON SLEEVES.



***SERVICE INFORMATION**

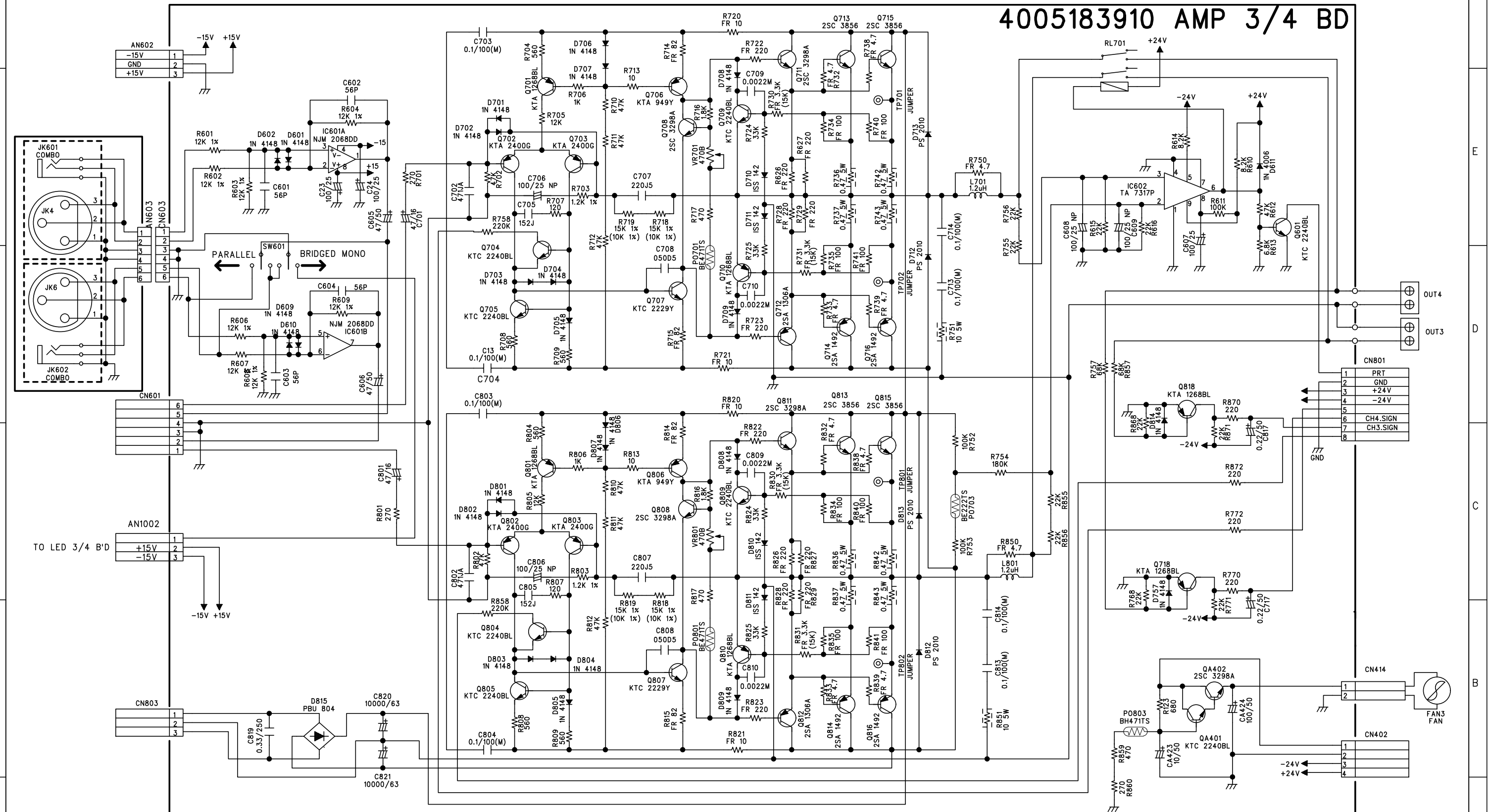
- RESISTANCE VALUES ARE INDICATED IN OHMS UNLESS OTHERWISE SPECIFIED. (K=1,000, M=1,000,000)
- CAPACITANCE VALUES ARE SHOWN IN MICROFARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICROFARADS)
- ALL VOLTAGES ARE REFERRED TO GROUND UNDER THE FOLLOWING CONDITIONS:
DC:NO SIGNAL EXCEPT WHERE INDICATED.
AC:RMS
- PRECAUTION-
A) ALL COMPONENTS MARKED MUST BE REPLACED ONLY WITH ORIGINAL TYPE SPECIFIED BY THE MANUFACTURER, Zeck CORPORATION AND INSTALLED AS THE ORIGINAL SPACE AND POSITIONED AWAY FROM ADJACENT COMPONENTS WHERE APPLICABLE.
B) ALL SOLDERING MUST BE DONE IN A PROFESSIONAL MANNER USING SOLDER WHITE RESINE CORE ONLY.
C) ALL COVERS, SHIELD AND INSULATING SPACERS MUST BE REPLACED BEFORE RETURNING APPLIANCE TO CUSTOMER.
D) DAMAGE POWER SUPPLY CORD MUST BE REPLACED BEFORE RETURNING TO CUSTOMER.
E) DIELECTRIC TEST CONSISTING OF 120V AC 60HZ IS TO BE APPLIED BETWEEN BOTH BALDES OF THE POWER SUPPLY CORD ATTACHMENT PLUG THE EXPOSE CONDUCTIVE SURFACE OF THE APPLIANCE FOR A PERIOD OF NOT LESS THAN ONE SECOND BEFORE RETURNING APPLIANCE TO CUSTOMER.
F) THE ~~100~~ MARKED RESISTORS ARE MOUNTED THE P.C.B ON SLEEVES.

	CHAMP2.350	CHAMP2.500
R107	13K	20K
R109	22K	20K
R170/R171	F.3.3K	F.3.3K
C201/C202/C203/C204	C200/R0	6800/100
F101	JAPAN	15A
	UL/CSA	12A
	DOMESTIC	7A
	EUROPE	7A
FAN1,2	ABC20X24B	F8020X24B



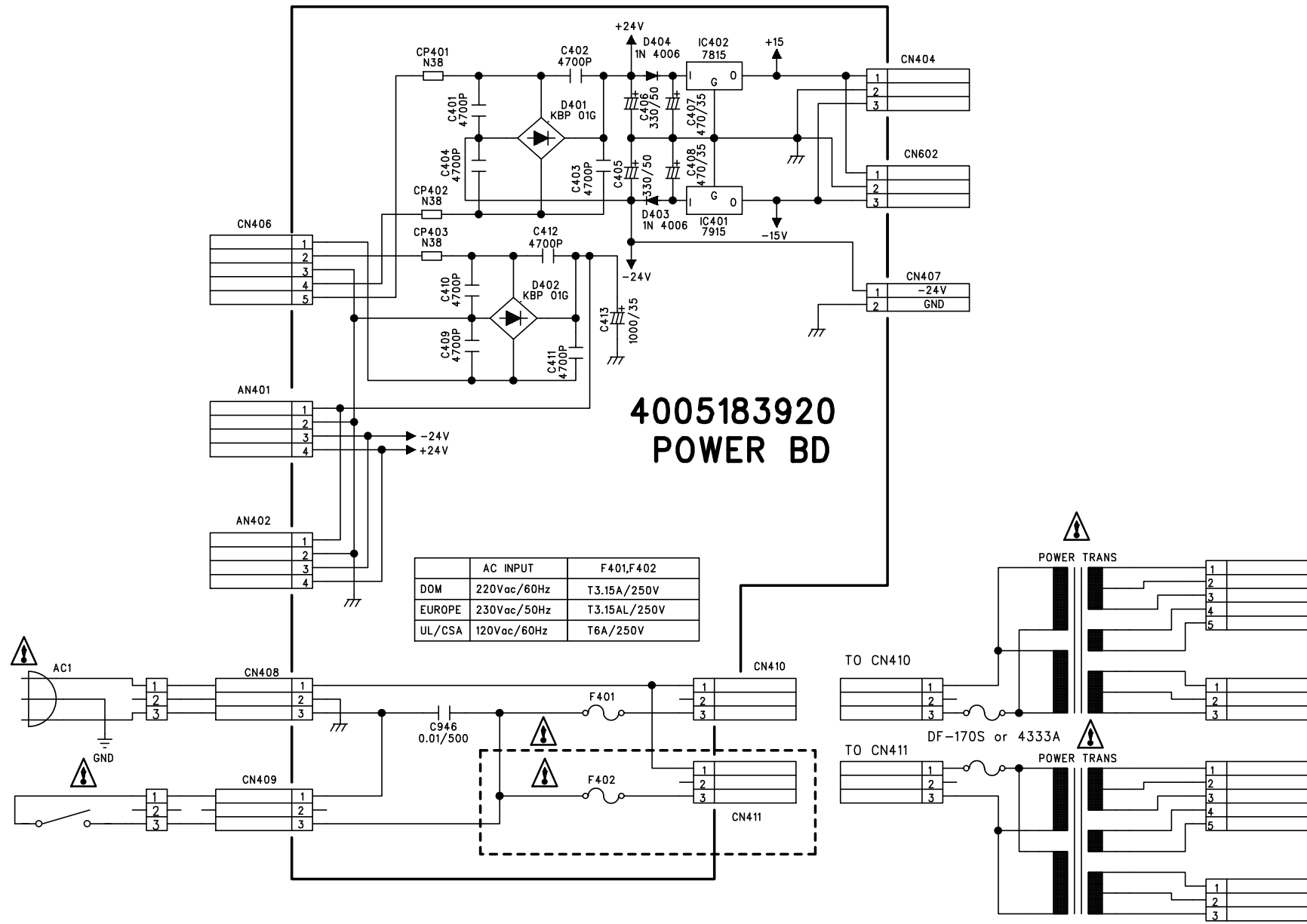
***SERVICE INFORMATION**

1. RESISTANCE VALUES ARE INDICATED IN OHMS UNLESS OTHERWISE SPECIFIED.
(K=1,000, M=1,000,000)
2. CAPACITANCE VALUES ARE SHOWN IN MICROFARADS UNLESS OTHERWISE NOTED.
(P=MICRO-MICROFARADS)
3. ALL VOLTAGES ARE REFERRED TO GROUND UNDER THE FOLLOWING CONDITIONS.
DC:NO SIGNAL EXCEPT WHERE INDICATED.
AC:RMS



***SERVICE INFORMATION**

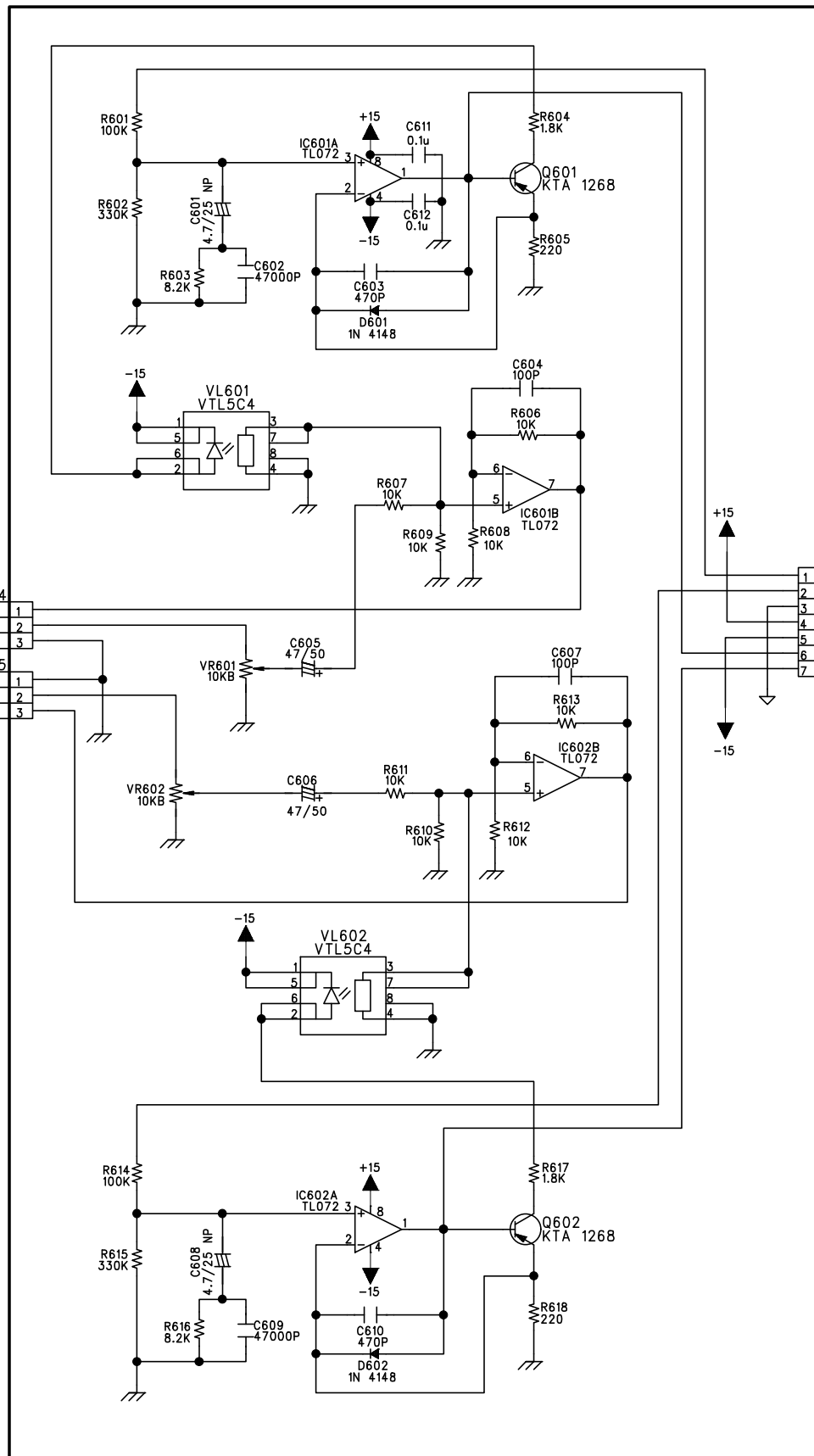
1. RESISTANCE VALUES ARE INDICATED IN OHMS UNLESS OTHERWISE SPECIFIED.
(K=1,000, M=1,000,000)
2. CAPACITANCE VALUES ARE SHOWN IN MICROFARADS UNLESS OTHERWISE NOTED.
(P=MICRO-MICROFARADS)
3. ALL VOLTAGES ARE REFERED TO GROUND UNDER THE FOLLOWING CONDITIONS.
DC:NO SIGNAL EXCEPT WHERE INDICATED.
AC:RMS



***SERVICE INFORMATION**

1. RESISTANCE VALUES ARE INDICATED IN OHMS UNLESS OTHERWISE SPECIFIED. (K=1.000, M=1.000.000)
2. CAPACITANCE VALUES ARE SHOWN IN MICROFARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICROFARADS)
3. ALL VOLTAGES ARE REFERED TO GROUND UNDER THE FOLLOWING CONDITIONS.
DC:NO SIGNAL EXCEPT WHERE INDICATED.
AC:RMS
4. -PRECAUTION-
 - A) ALL COMPONENTS MARKED MUST BE REPLACED ONLY WITH ORIGINAL TYPE SPECIFIED BY THE MANUFACTURER. Zeck CORPORATION AND INSTALLED AS THE ORIGINAL SPACE AND POSITIONED AWAY FORM ADJACENT COMPONENTS WHERE APPLICABLE.
 - B) ALL SOLDERING MUST BE DONE IN A PROFESSIONAL MANNER USING SOLDER WHITE RESINE CORE ONLY.
 - C) ALL COVERS, SHIELD AND INSULATING SPACERS MUST BE REPLACED BEFORE RETURING APPLIANCE TO CUSTOMER.
 - D) A DAMAGE POWER SUPPLY CORD MUST BE REPLACED BEFORE RETURING TO CUSTOMER.
 - E) DIELECTRIC TEST CONSISTING OF 120V AC 60HZ IS TO BE APPLIED BETWEEN BOTH BALDES OF THE POWER SUPPLY CORD ATTACHMENT PLUG THE EXPOSE CONDUCTIVE SURFACE OF THE APPLIANCE FOR A PERIOD OF NOT LESS THAN ONE SECOND BEFORE RETURING APPLIANCE TO CUSTOMER.
 - F) THE MARKED RESISTORS ARE MOUNTED THE P.C.B ON SLEEVES.

○ 4005185100 VR 1/2 B'D

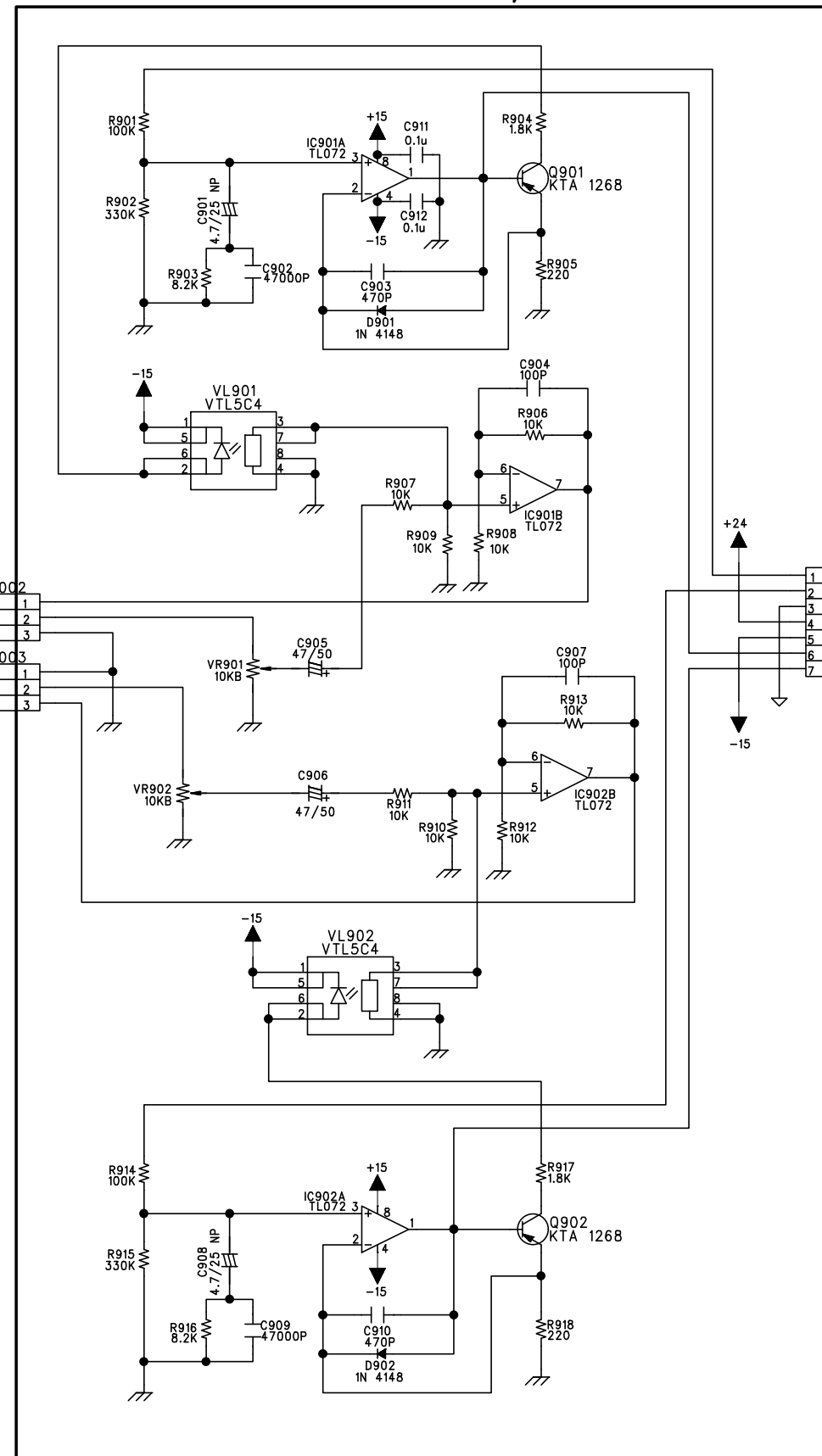


FROM AMP 1/2 B'D

AN501	
1	CH2.CLIP
2	CH1.CLIP
3	GND
4	+15V
5	-15V
6	CH2.LIMIT
7	CH1.LIMIT

FROM LED 1/2 B'D

○ 4005185110 VR 3/4 B'D

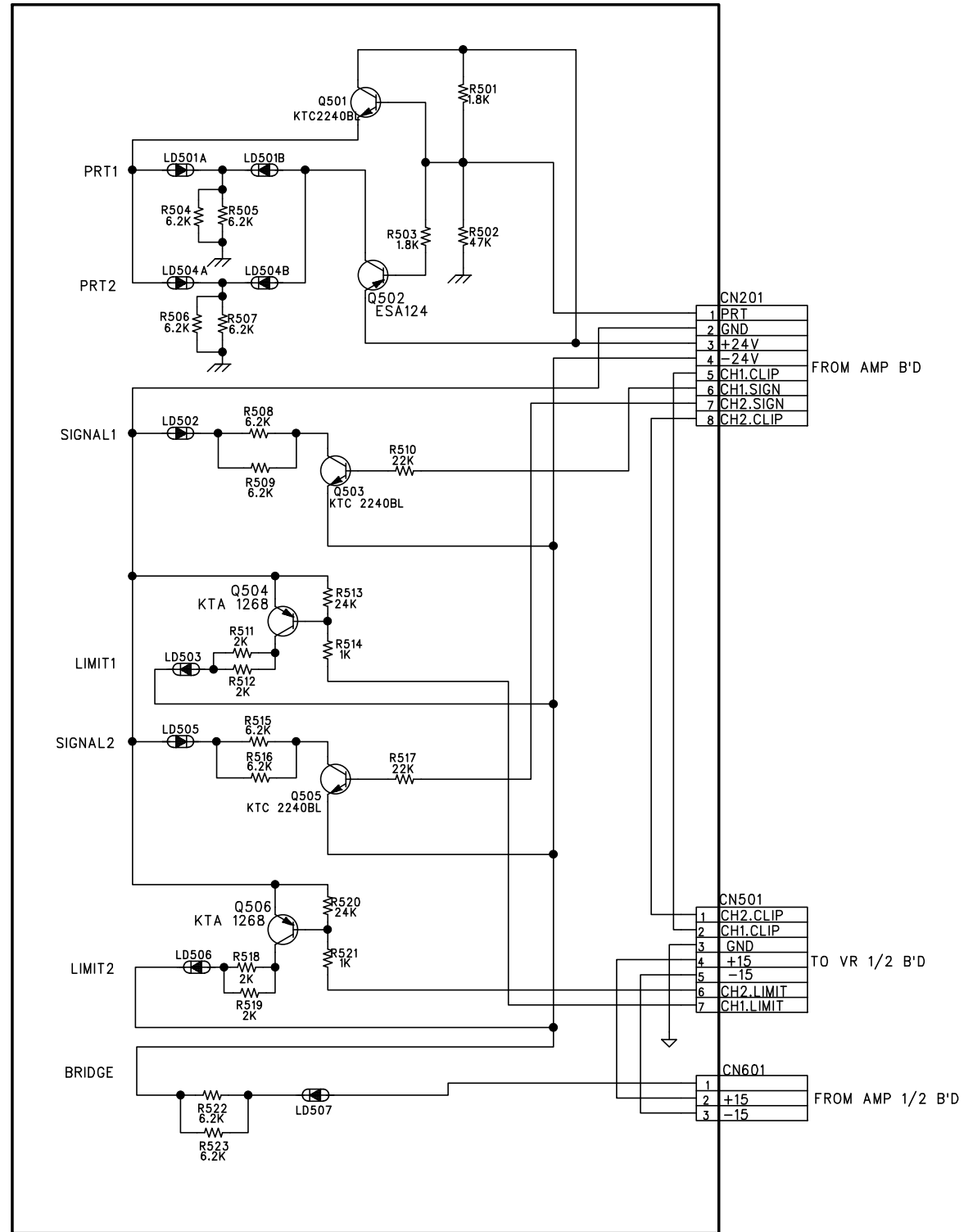


FROM AMP 3/4 B'D

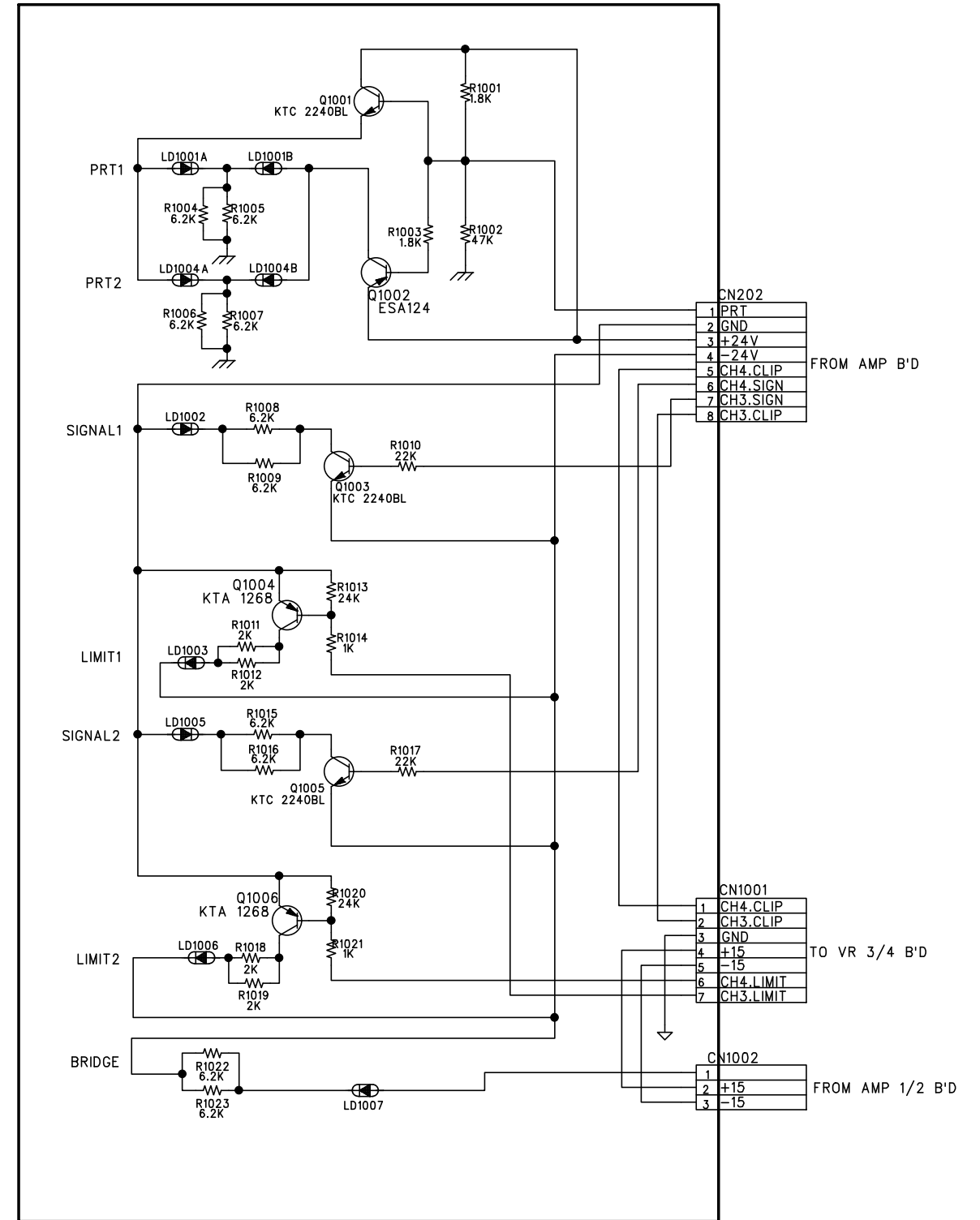
AN901	
1	CH4.CLIP
2	CH3.CLIP
3	GND
4	+15V
5	-15V
6	CH4.LIMIT
7	CH3.LIMIT

FROM LED 3/4 B'D

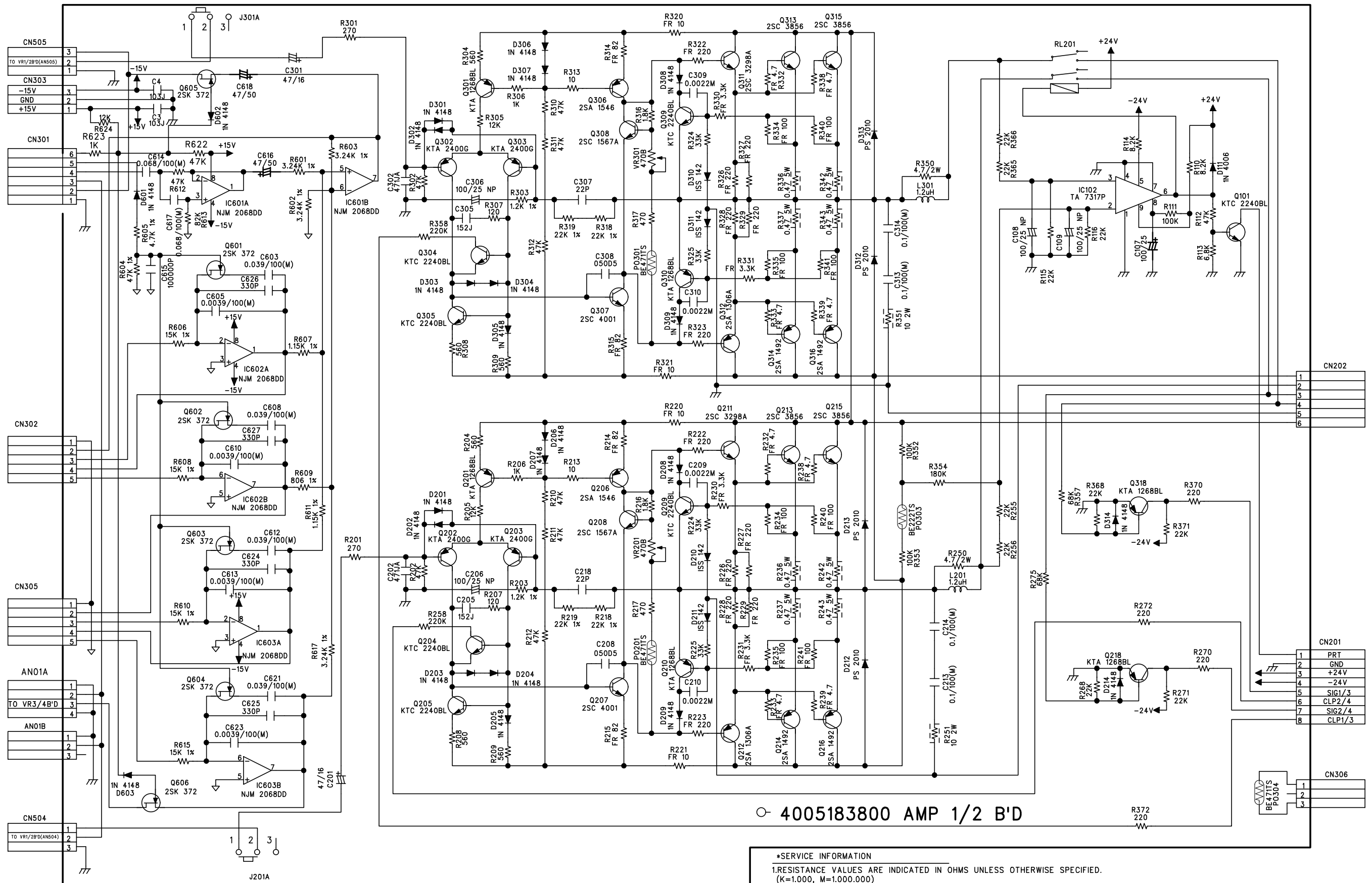
○ 4005185120 LED 1/2 B'D



○ 4005185130 LED 3/4 B'D



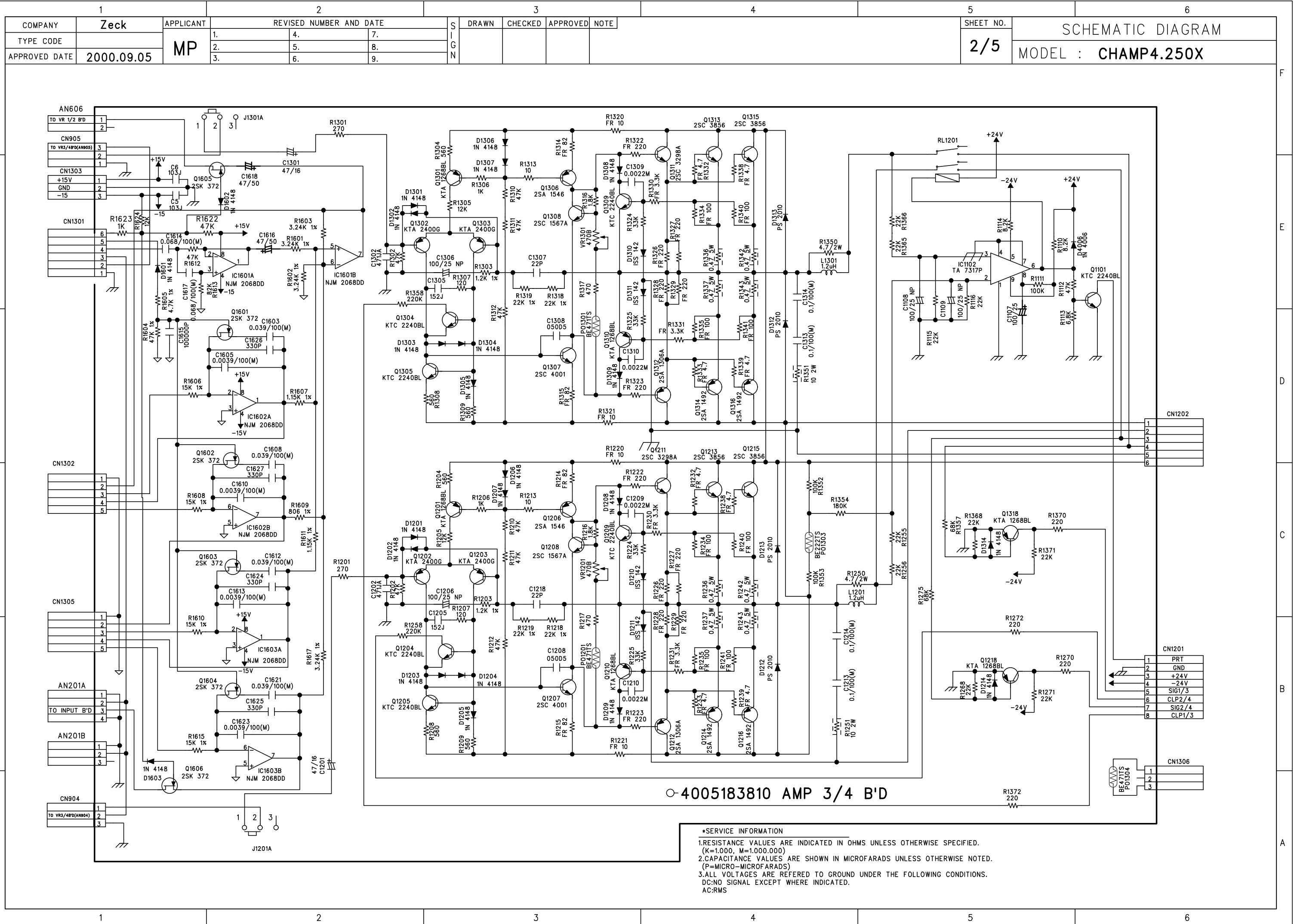
1	2	3	4	5	6
COMPANY	Zeck	APPLICANT	REVISED NUMBER AND DATE		SIGNATURE
TYPE CODE		MP	1.	4.	7.
APPROVED DATE	2000.09.05		2.	5.	8.
			3.	6.	9.
				DRAWN	CHECKED
				APPROVED	NOTE
				SHEET NO.	
				1/5	
				SCHEMATIC DIAGRAM	
				MODEL : CHAMP4.250X	



400518380 AMP 1/2 B'D

- *SERVICE INFORMATION
- 1.RESISTANCE VALUES ARE INDICATED IN OHMS UNLESS OTHERWISE SPECIFIED.
(K=1,000, M=1,000,000)
 - 2.CAPACITANCE VALUES ARE SHOWN IN MICROFARADS UNLESS OTHERWISE NOTED.
(P=MICRO-MICROFARADS)
 - 3.ALL VOLTAGES ARE REFERRED TO GROUND UNDER THE FOLLOWING CONDITIONS.
DC:NO SIGNAL EXCEPT WHERE INDICATED.
AC:RMS

1	PRT
2	GND
3	+24V
4	-24V
5	SIG1/3
6	CLP2/4
7	SIG2/4
8	CLP1/3



COMPANY	Zeck	APPLICANT	REVISED NUMBER AND DATE			SIGN
TYPE CODE		MP	1.	4.	7.	
APPROVED DATE	2000.09.05		2.	5.	8.	

3.	6.	9.
----	----	----

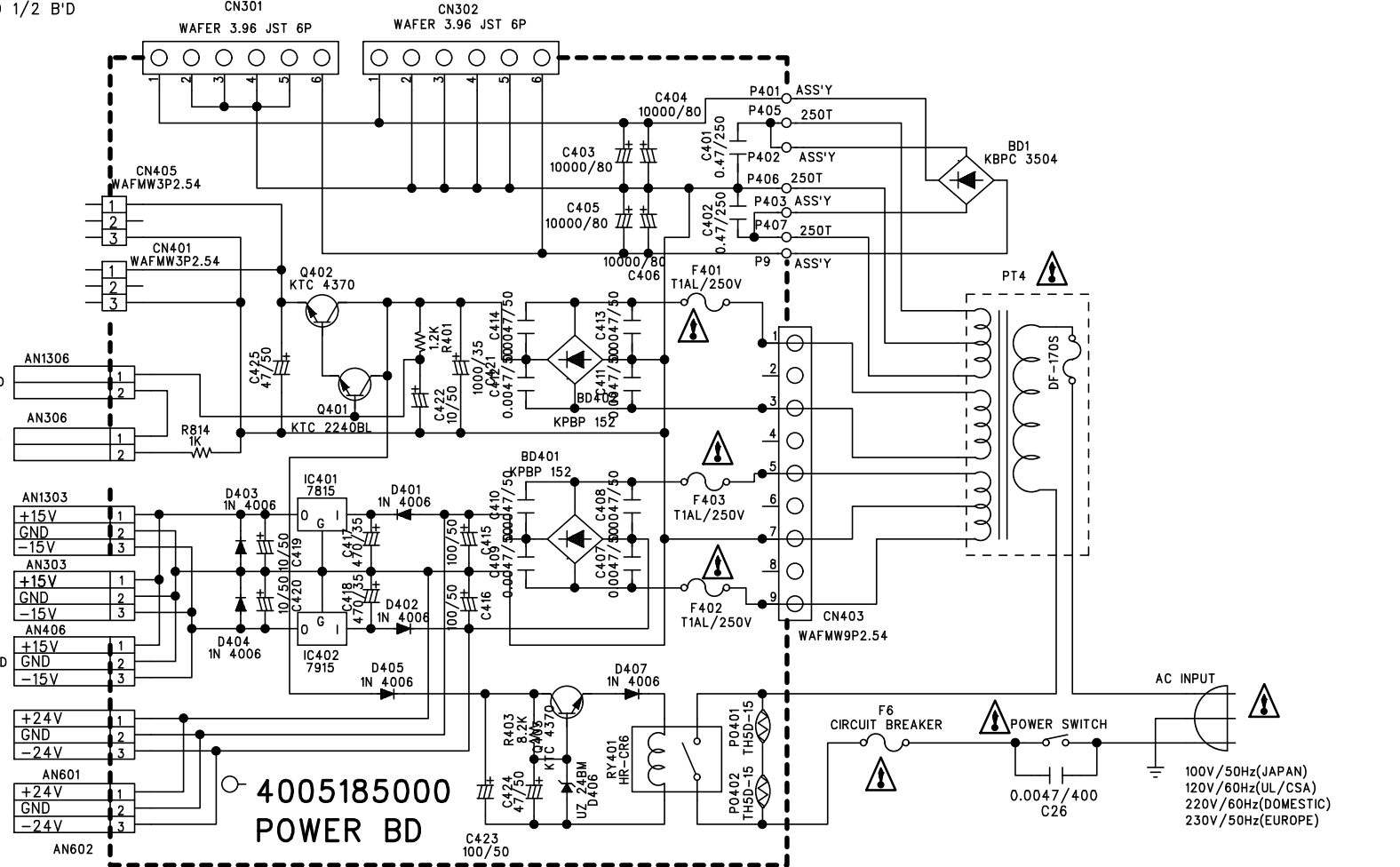
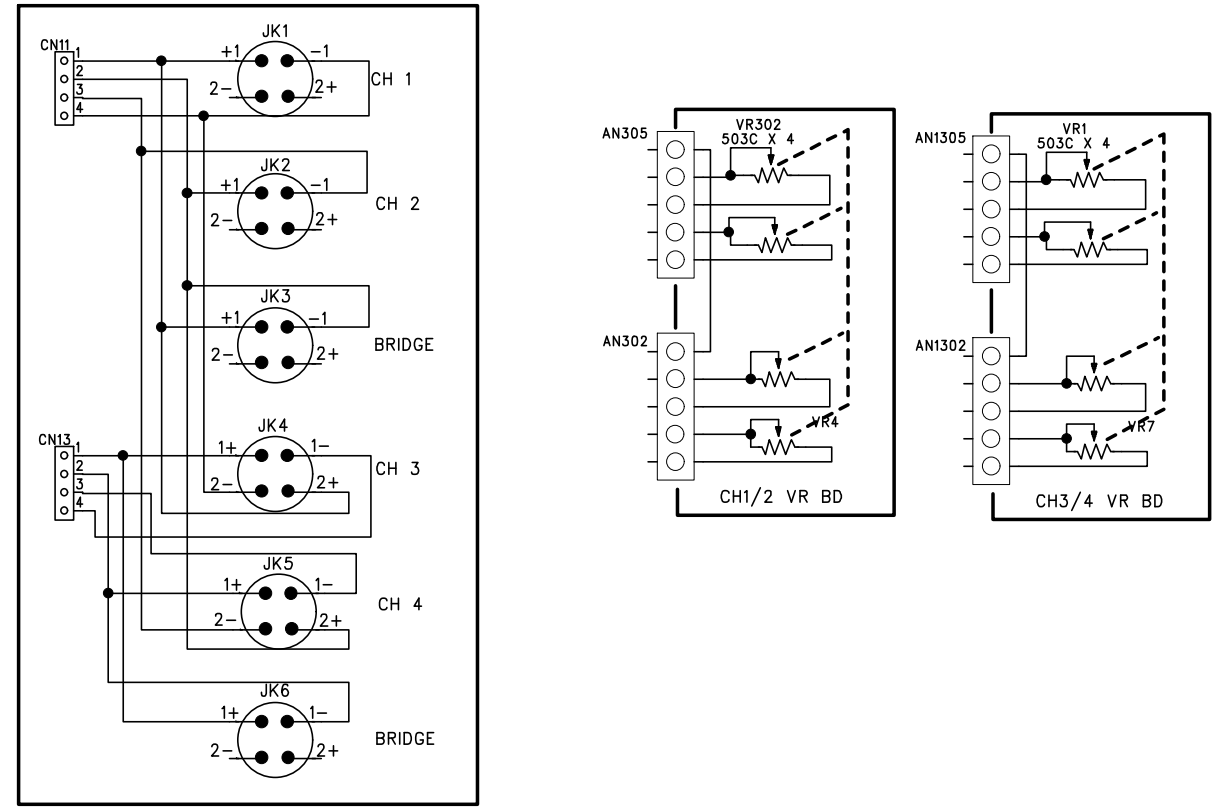
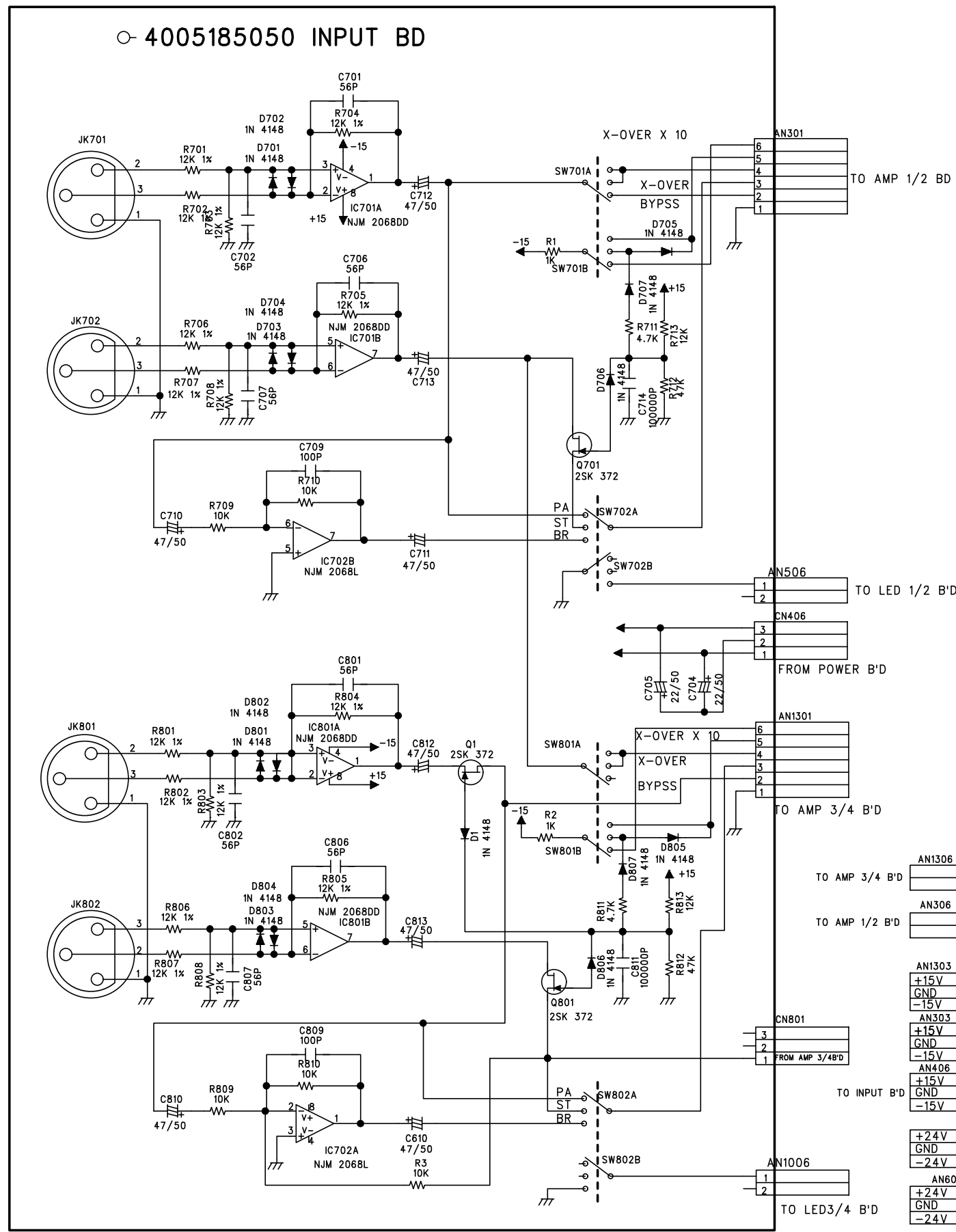
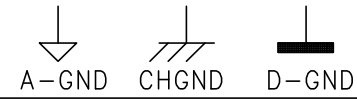
SHEET NO.	2/5	SCHEMATIC DIAGRAM
		MODEL : CHAMP4.250X

4005183810 AMP 3/4 B'D

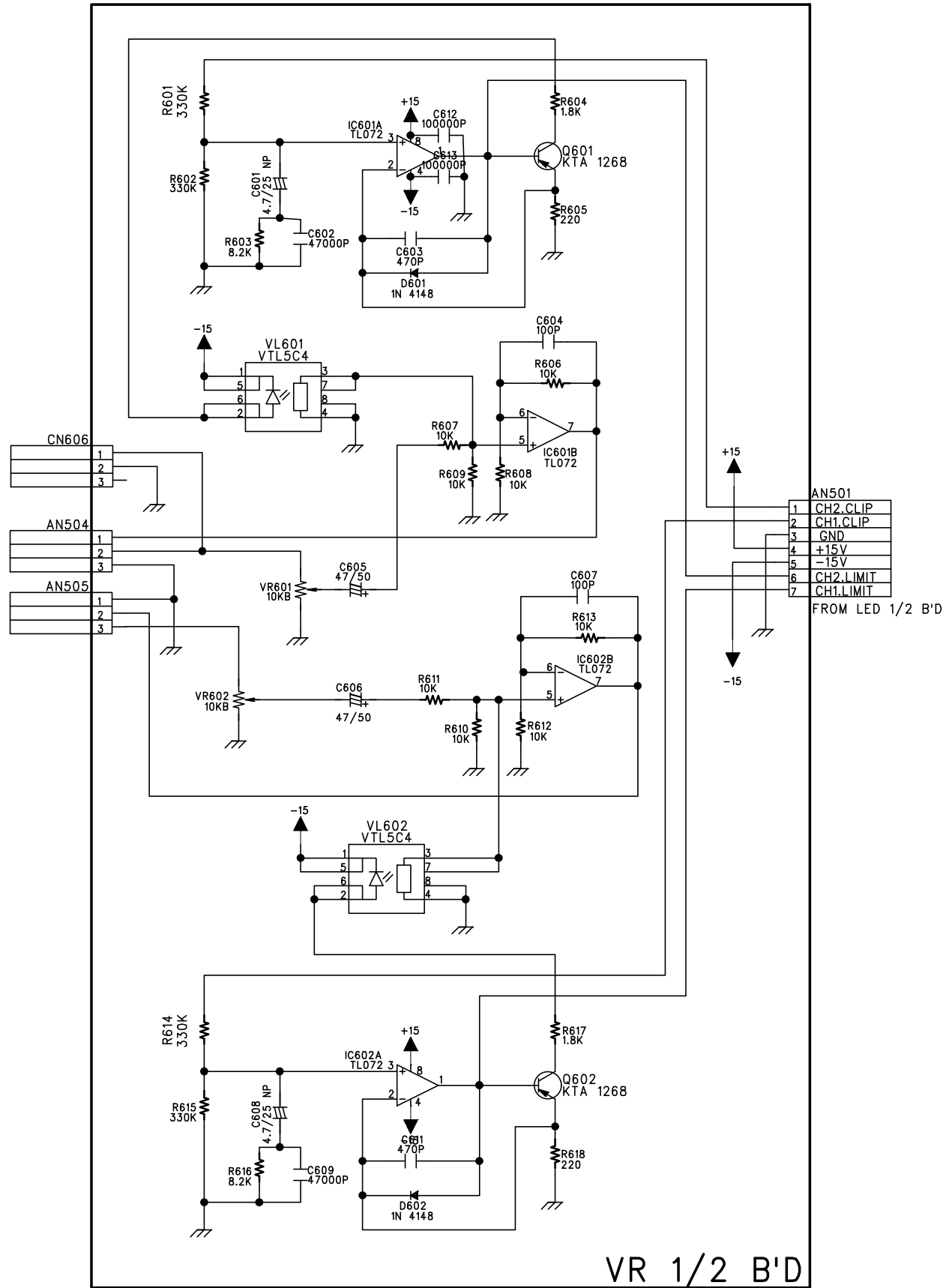
- *SERVICE INFORMATION
- RESISTANCE VALUES ARE INDICATED IN OHMS UNLESS OTHERWISE SPECIFIED.
(K=1,000, M=1,000,000)
 - CAPACITANCE VALUES ARE SHOWN IN MICROFARADS UNLESS OTHERWISE NOTED.
(P=MICRO-MICROFARADS)
 - ALL VOLTAGES ARE REFERRED TO GROUND UNDER THE FOLLOWING CONDITIONS.
DC:NO SIGNAL EXCEPT WHERE INDICATED.
AC:RMS

CN1201	1	PRT
	2	GND
	3	+24V
	4	-24V
	5	SIG1/3
	6	CLP2/4
	7	SIG2/4
	8	CLP1/3

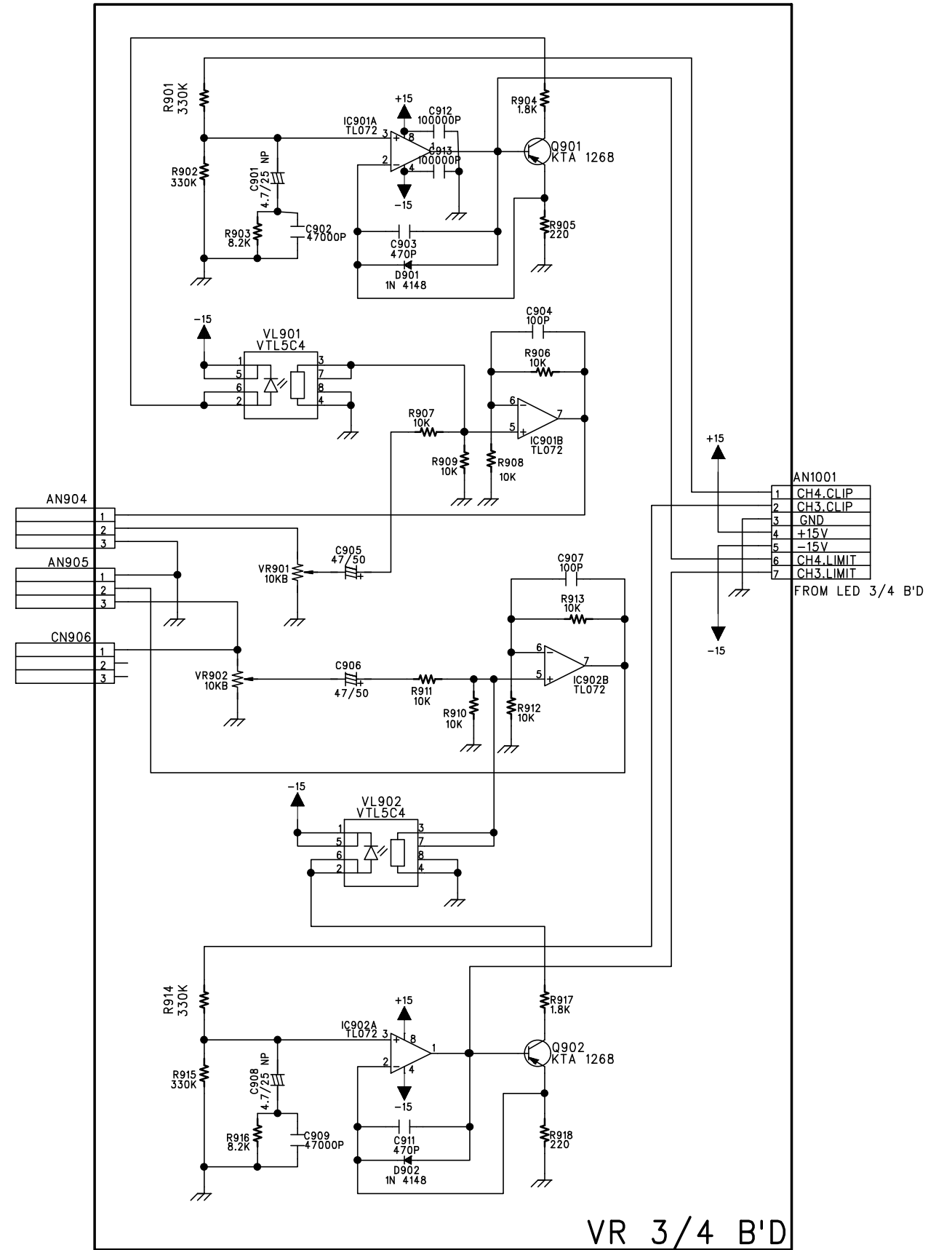
CN1306	1	BE4715
	2	POT1304
	3	



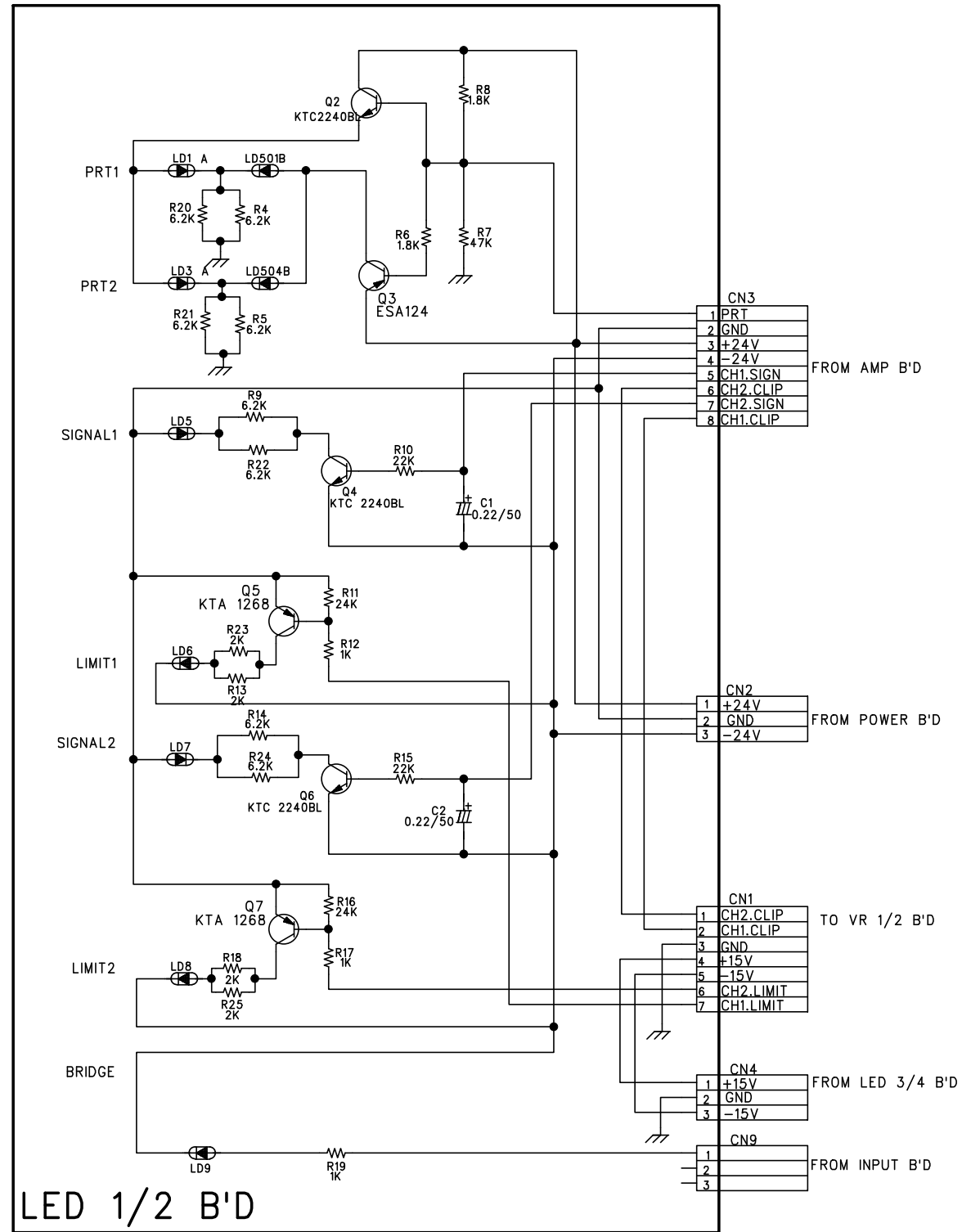
4005185010 VR 1/2 B'D



4005185020 VR 3/4 B'D



○ 4005185030 LED 1/2 B'D



○ 4005185040 LED 3/4 B'D

