

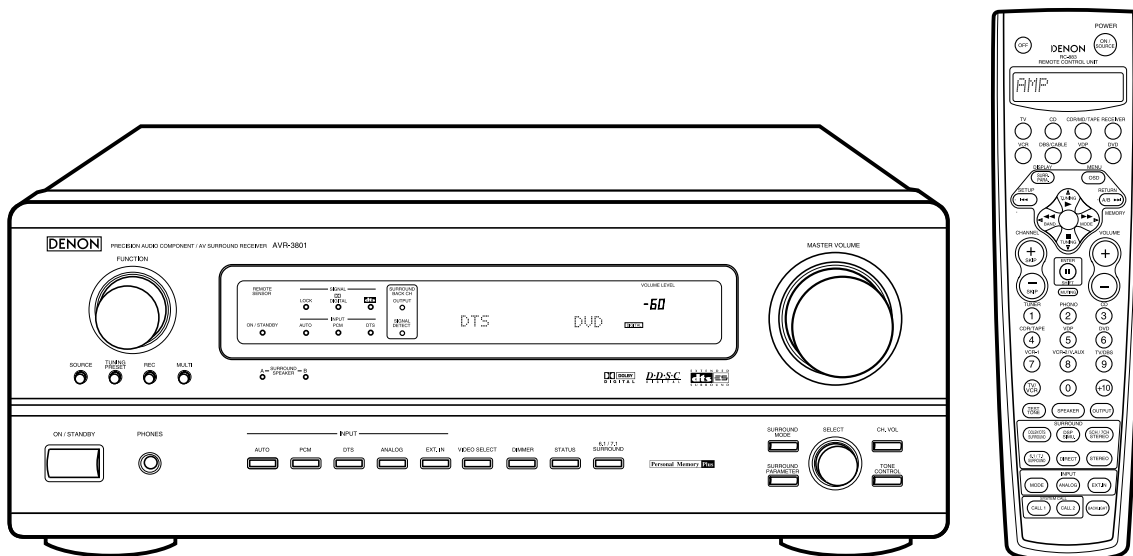
# DENON

Hi-Fi Component

## SERVICE MANUAL

# MODEL AVR-3801

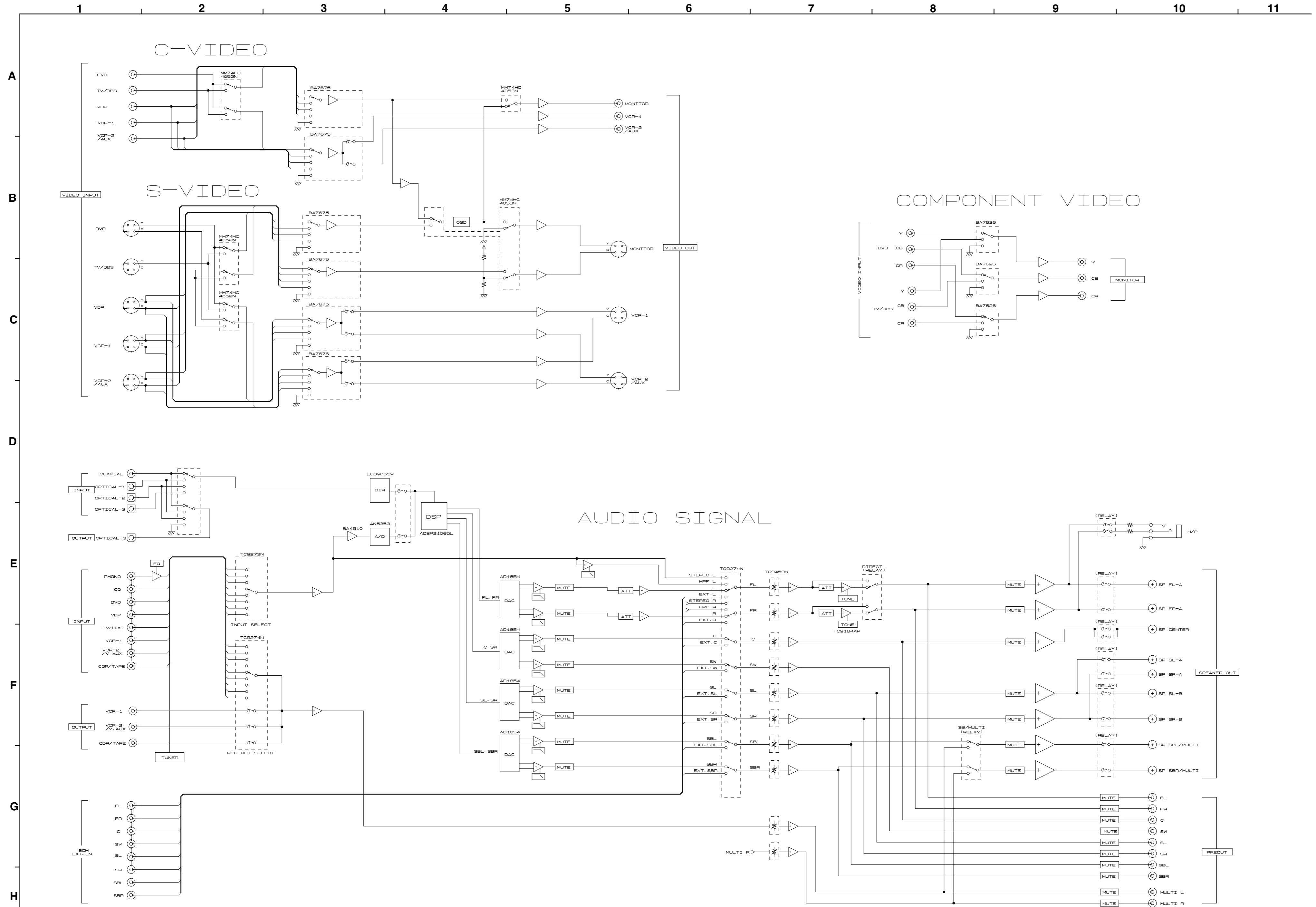
### AV SURROUND RECEIVER



● Some illustrations using in this service manual are slightly different from the actual set.

# NIPPON COLUMBIA CO. LTD.

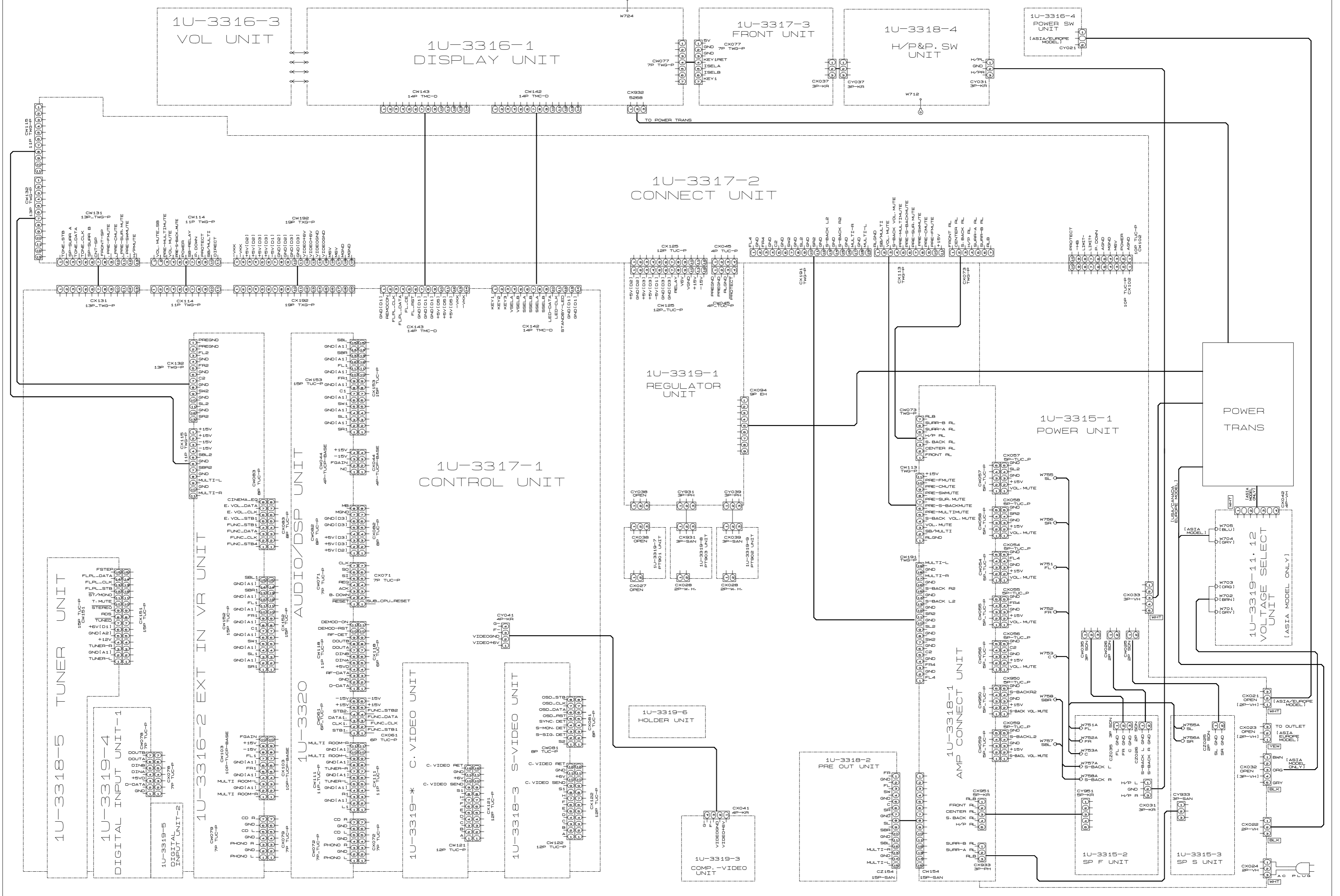
BLOCK DIAGRAM



WIRING DIAGRAM

1 2 3 4 5 6 7 8 9 10 11

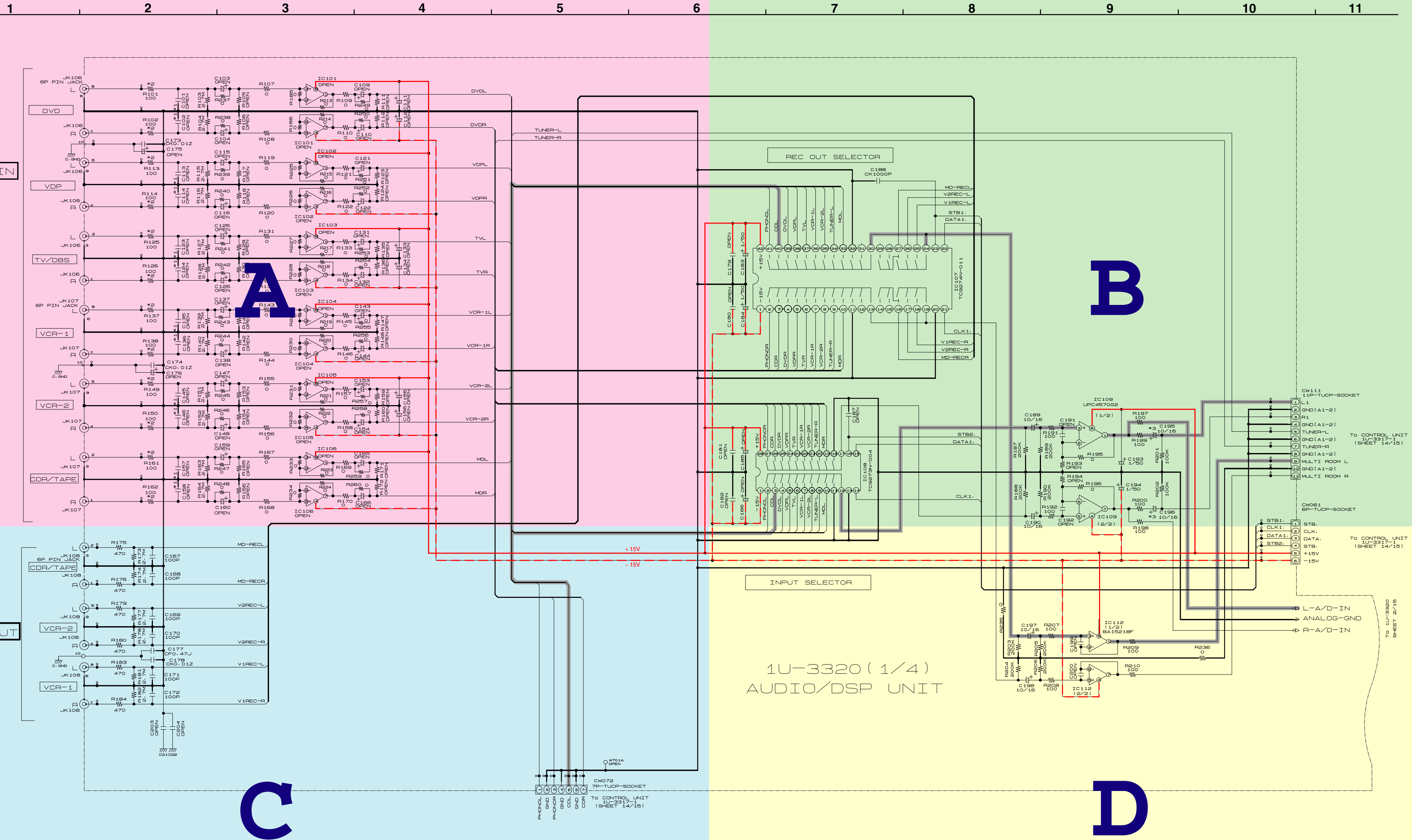
AVR3801 WIRING DIAGRAM



A  
B  
C  
D  
E  
F  
G  
H

avr381wd.c1r/001.sht

SCHEMATIC DIAGRAMS (1/15)



	*1	*2	*3
	0.0, 101, 102, 123, 124, 145, 146, 147, 158	101, 102, 126, 137, 138, 149, 150, 161, 162	C195, 196
*USA			
CANADA			
ASIA	OPEN	OPEN	10/15
HONG KONG			
CHINA			
EUROPE	330P	470	100/15
TAIWAN R. O. C.	330P	470	10/15

**WARNING:**  
Parts marked with this symbol  $\Delta$  have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and corrected.

**NOTICE**  
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

1U-3320 (1/4)  
AUDIO/DSP UNIT

— + B LINE  
- - - - - B LINE  
— SIGNAL

SCHEMATIC DIAGRAMS (1/15)  
1U-3320 (1/4) AUDIO/DSP UNIT



# SCHEMATIC DIAGRAMS (1/15)

1

2

3

4

5

6

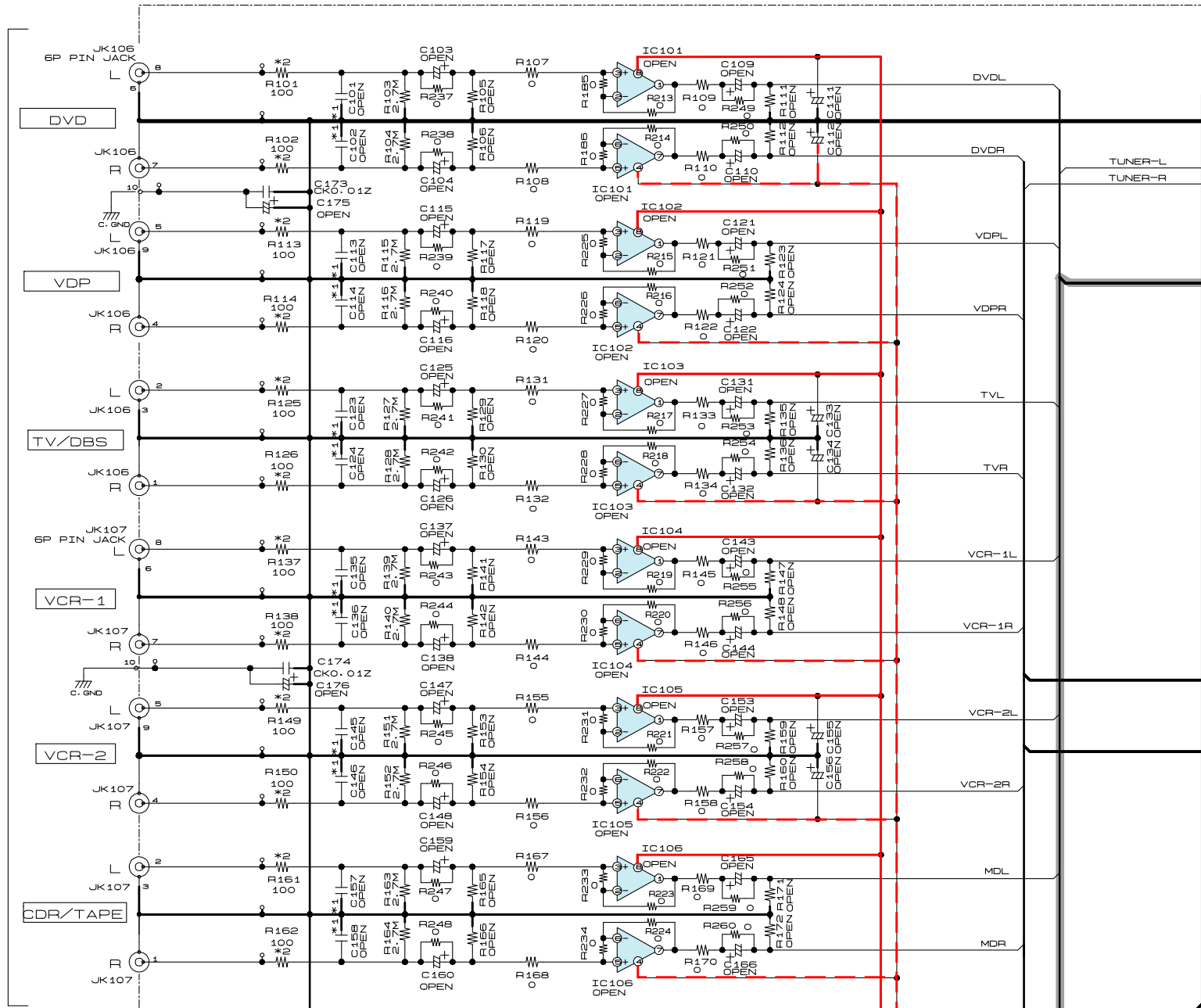
A

B

C

D

IN



TUNER-L  
TUNER-R

DVDL

DVDR

VDPL

VDPR

TVL

TVR

VCR-1L

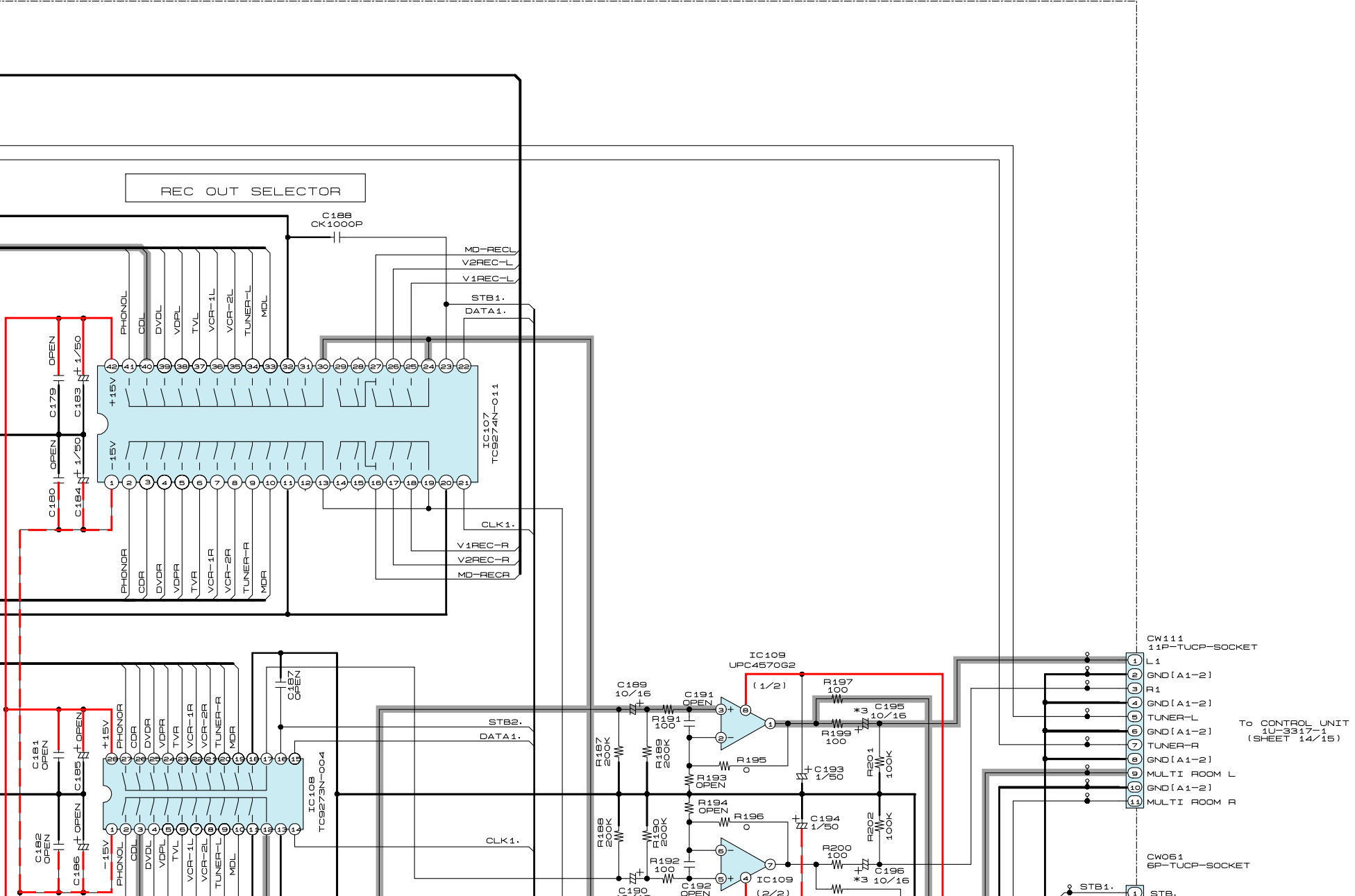
VCR-1R

VCR-2L

VCR-2R

MDL

MDR



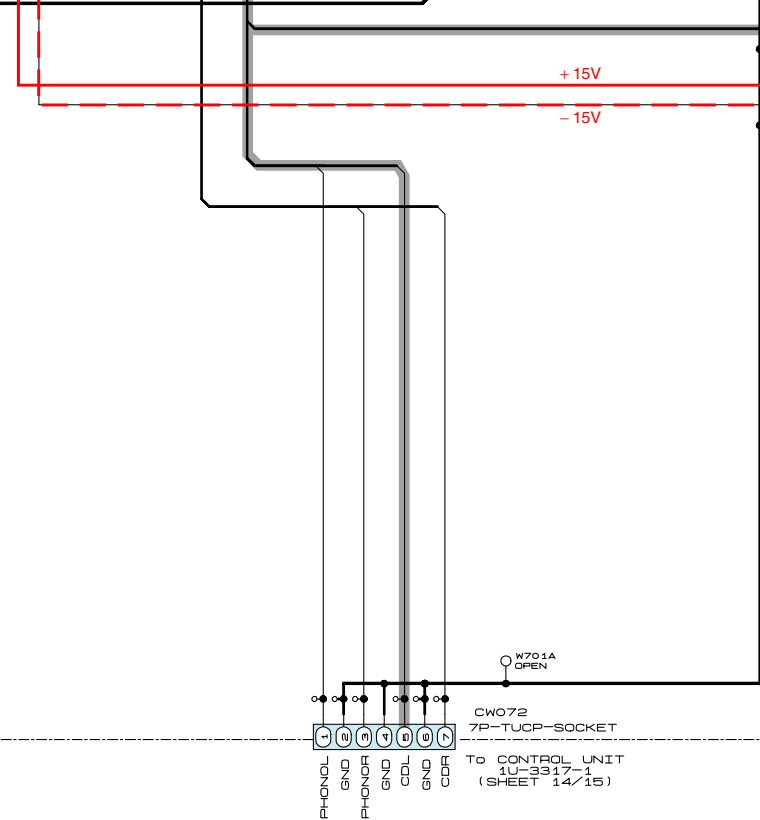
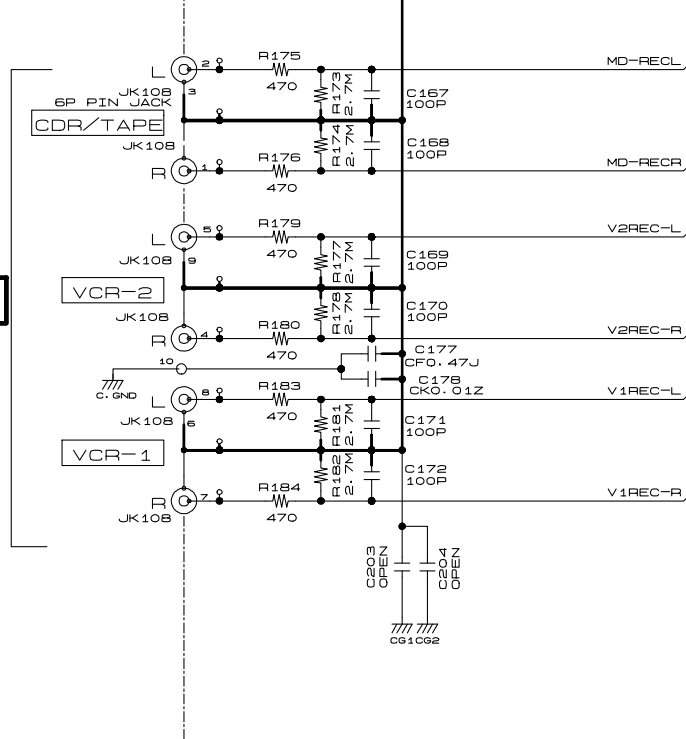
E

F

G

H

OUT





	*1	*2	*3
	C101, 102, 113, 114 C123, 124, 135, 136 C145, 146, 157, 158	R101, 102, 113, 114 R125, 126, 137, 138 R149, 150, 161, 162	C195, 196
*USA CANADA ASIA HONG KONG CHINA	OPEN	OPEN	10/16
EUROPE	330P	470	100/16
TAIWAN R. O. C	330P	470	10/16

**NOTICE**

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
 CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
 NOTICE.

**WARNING:**

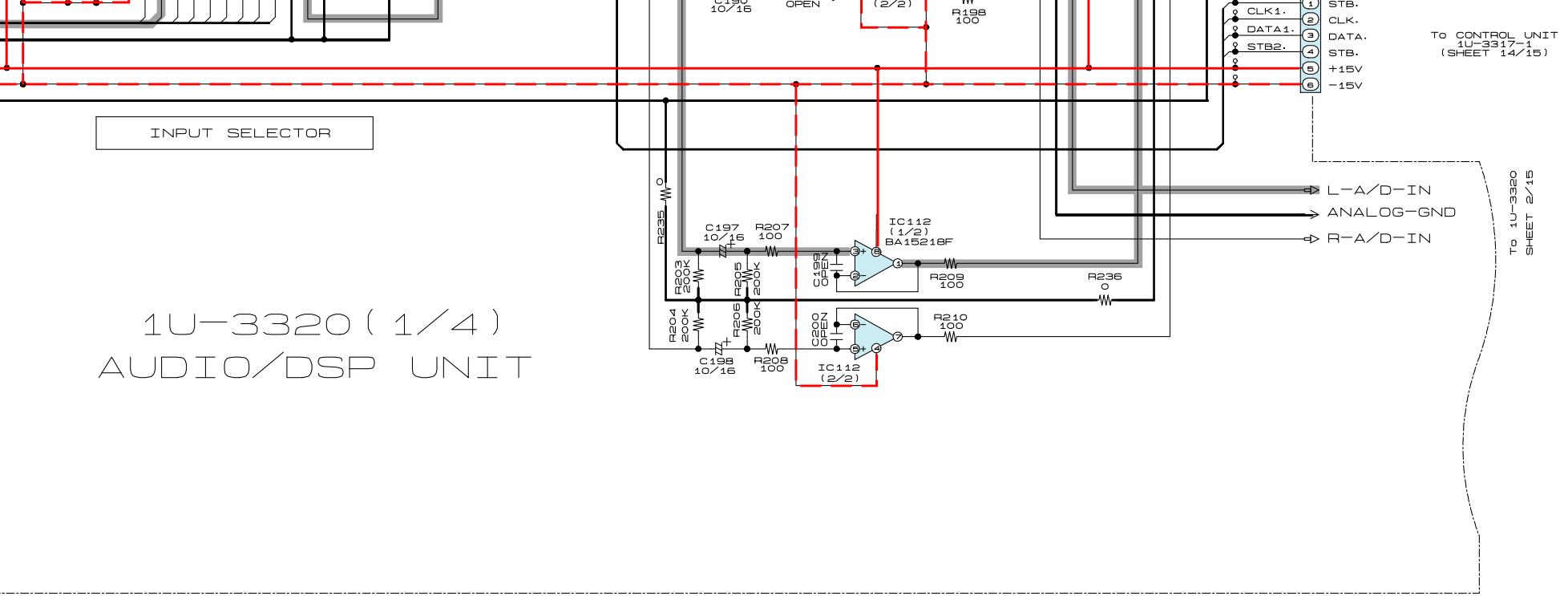
Parts marked with this symbol   have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**

DO NOT return the unit to the customer until the problem is located and corrected.



1U-3320 ( 1/4 )  
AUDIO/DSP UNIT

- + B LINE
- - - - B LINE
- SIGNAL

**SCHEMATIC DIAGRAMS (1/15)**  
1U-3320 (1/4) AUDIO/DSP UNIT

SCHEMATIC DIAGRAMS (2/15)

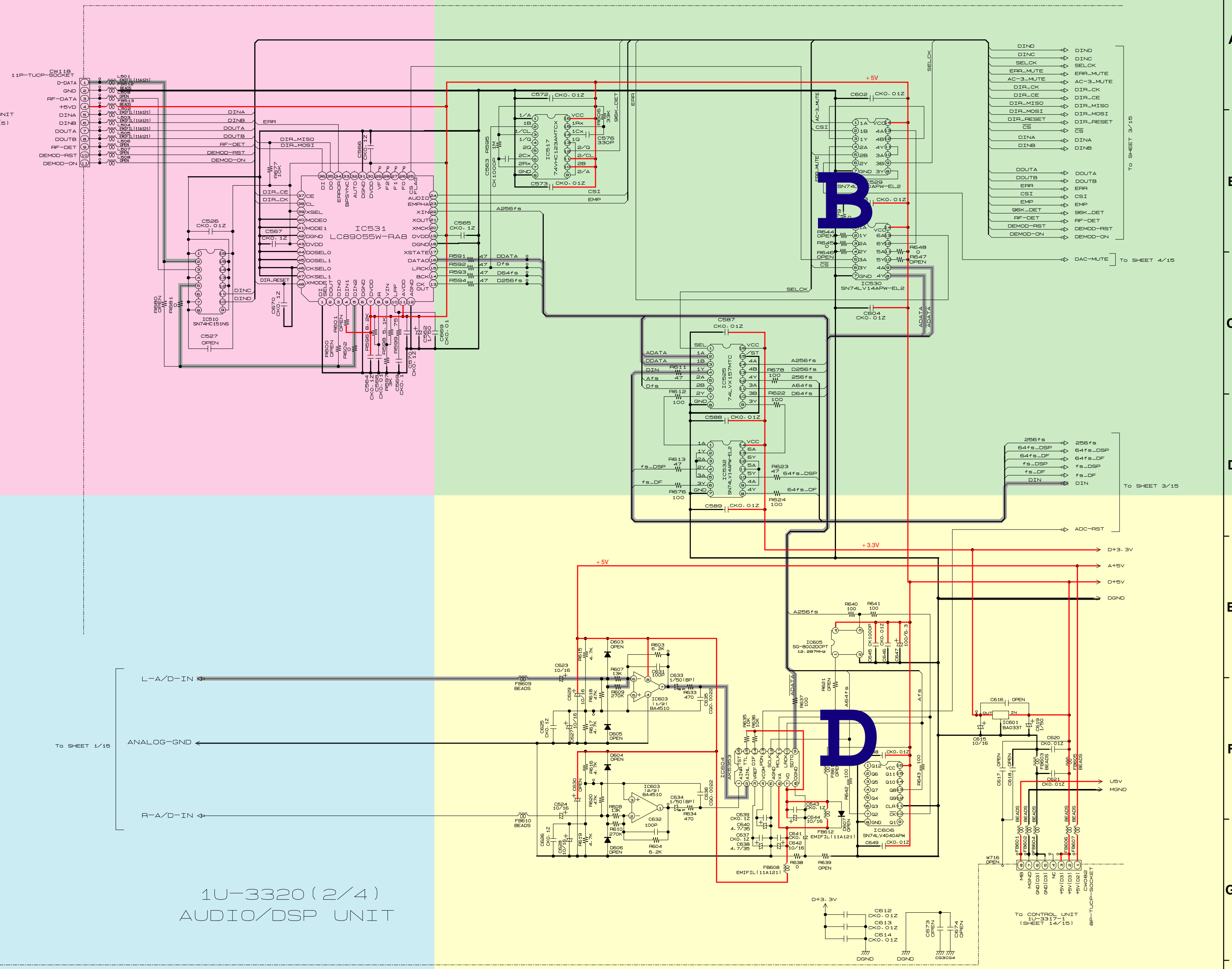
1 2 3 4 5 6 7 8 9 10 11

A

B

C

D



TO CONTROL UNIT 1U-3317 (SHEET 14/15)

TO SHEET 3/15

TO SHEET 3/15

TO SHEET 1/15

1U-3320 (2/4) AUDIO/DSP UNIT

**NOTICE**  
 ALL RESISTANCE VALUES IN OHM. K=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

**WARNING:**  
 Parts marked with this symbol  $\Delta$  have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**  
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
 DO NOT return the unit to the customer until the problem is located and corrected.

+ B LINE  
 SIGNAL

SCHEMATIC DIAGRAMS (2/15)  
 1U-3320 (2/4) AUDIO/DSP UNIT

# SCHEMATIC DIAGRAMS (2/15)

1

2

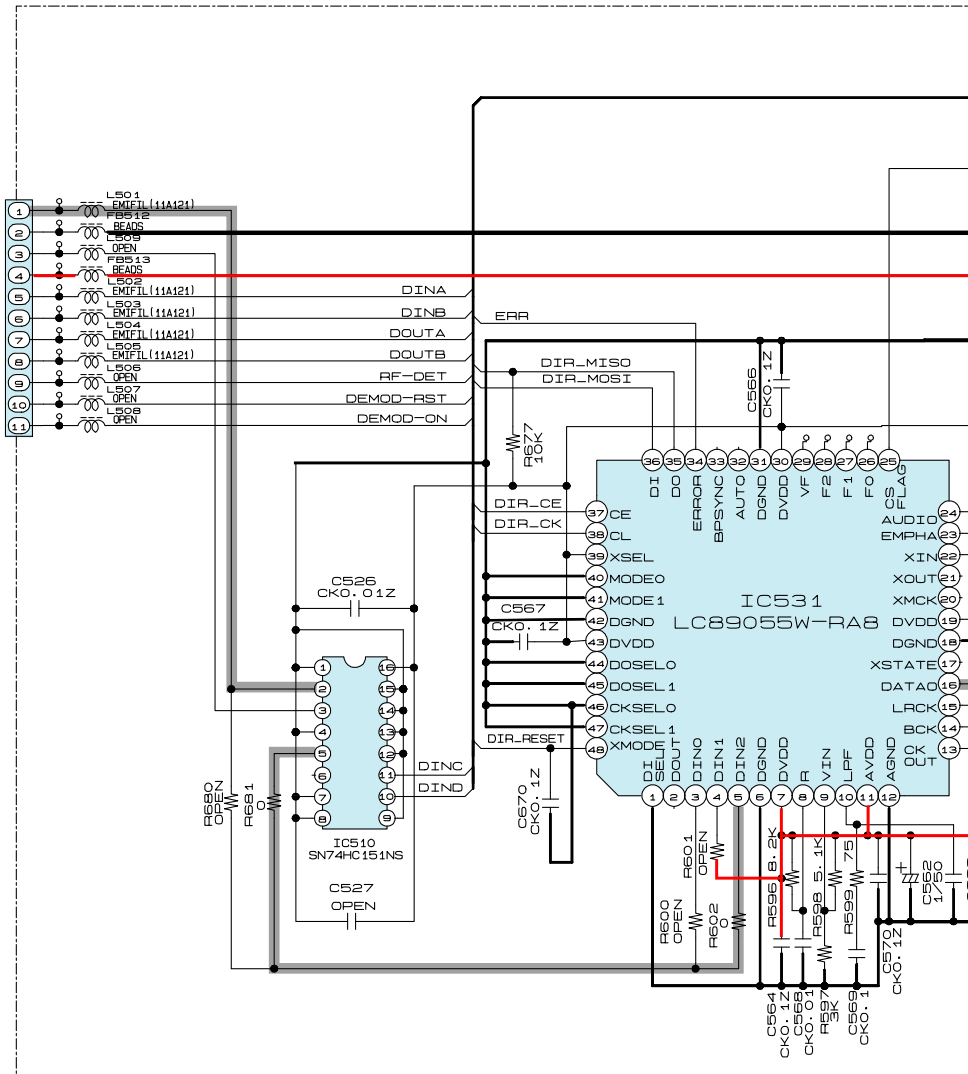
3

4

5

To CONTROL UNIT  
1U-3317-1  
(SHEET 14/15)

- 11P-TUCP-SOCKET
- 0
- 1 D-DATA
- 2 GND
- 3 RF-DATA
- 4 +SVD
- 5 DINA
- 6 DINB
- 7 DOUTA
- 8 DOUTB
- 9 RF-DET
- 10 DEMOD-RST
- 11 DEMOD-ON





6

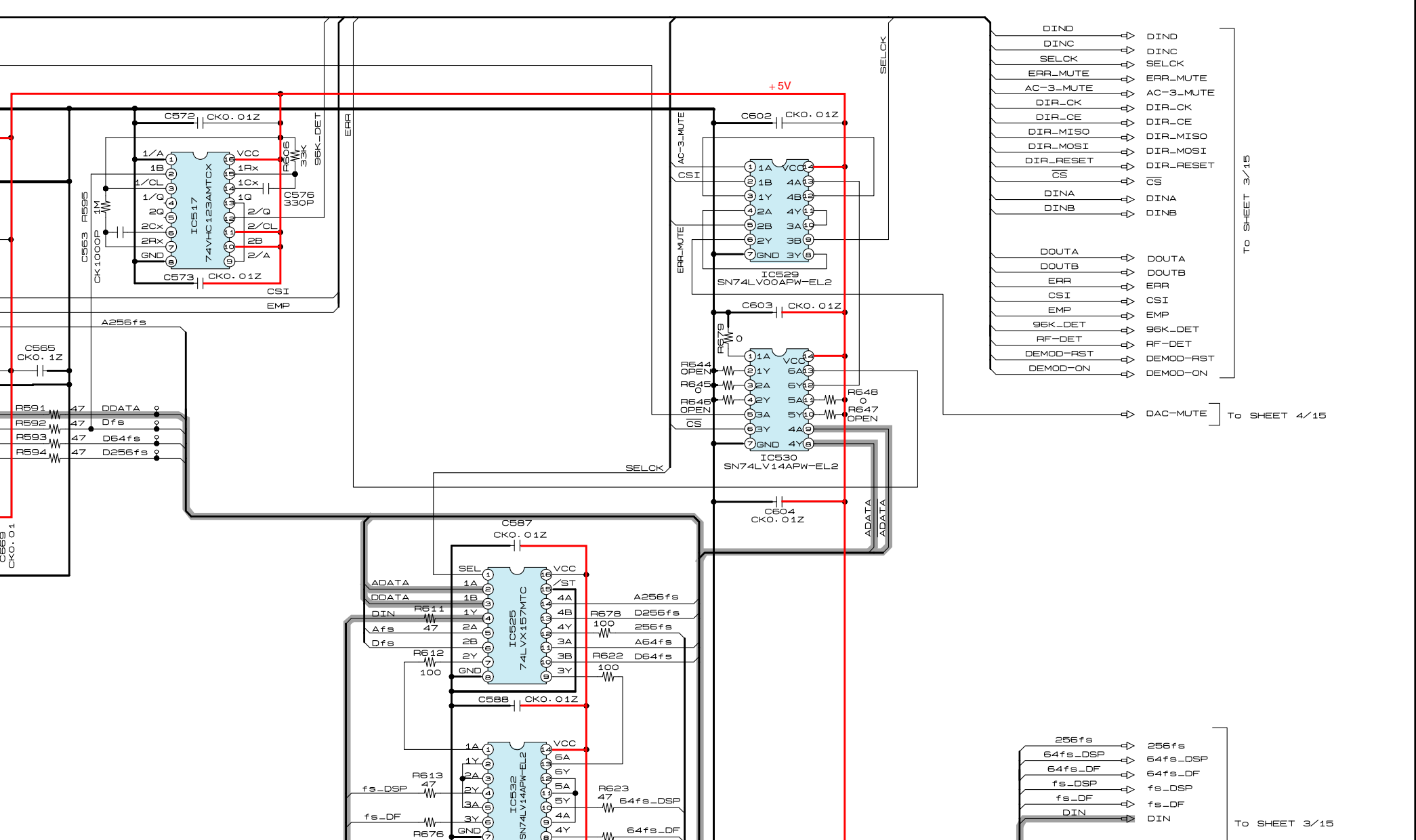
7

8

9

10

11



A

B

C

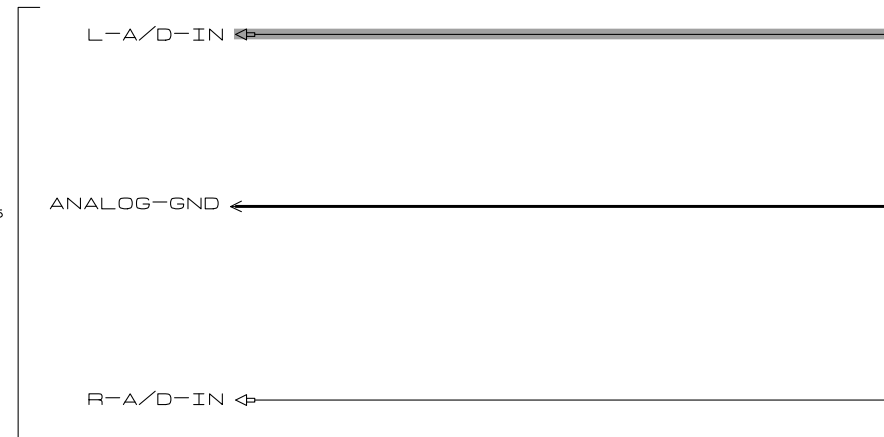
D

To SHEET 3/15

To SHEET 4/15

To SHEET 3/15

To SHEET 1/15



**NOTICE**

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

**WARNING:**

Parts marked with this symbol  have critical characteristics.  
Use ONLY replacement parts recommended by the manufacture.

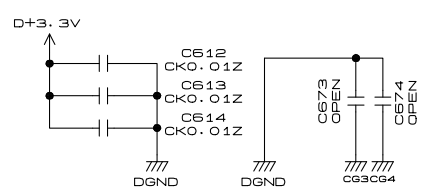
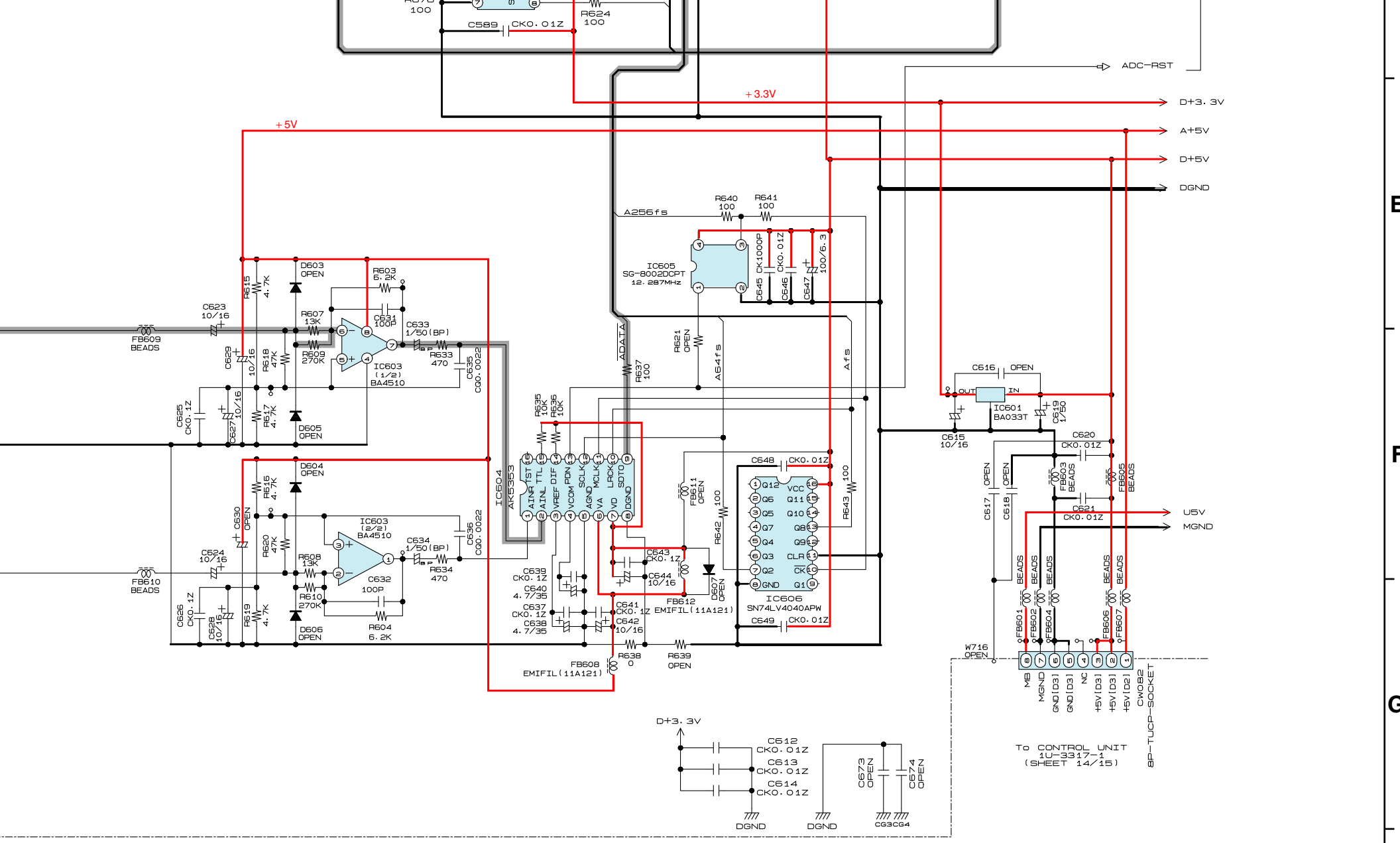
**CAUTION:**

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**

DO NOT return the unit to the customer until the problem is located and corrected.

1U-3320 (2/4)  
AUDIO/DSP UNIT



— + B LINE  
— SIGNAL

**SCHEMATIC DIAGRAMS (2/15)**  
 1U-3320 (2/4) AUDIO DSP UNIT

SCHEMATIC DIAGRAMS (3/15)

1 2 3 4 5 6 7 8 9 10 11

A

B

C

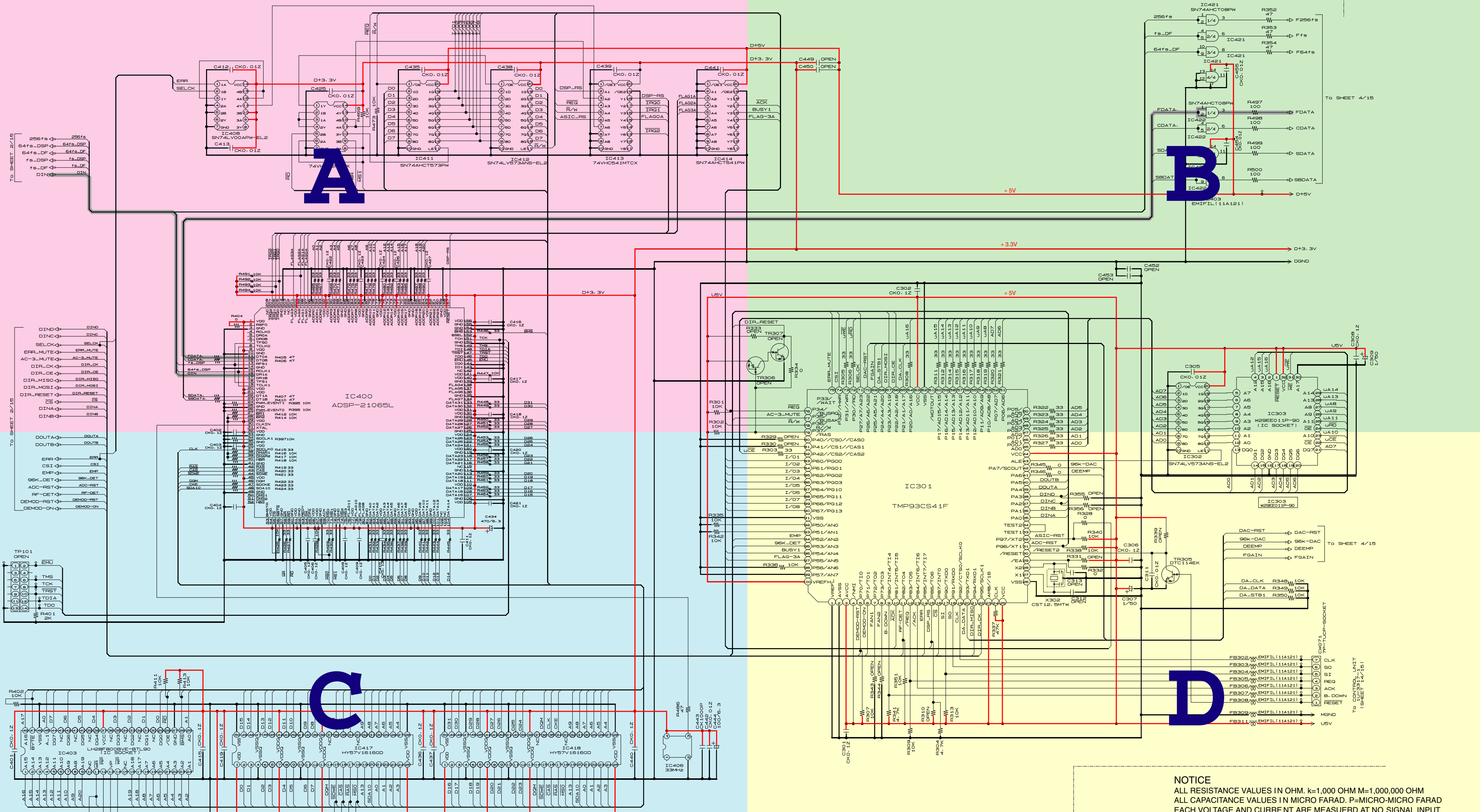
D

E

F

G

H



1U-3320 (3/4)  
AUDIO/DSP UNIT

— + B LINE  
— SIGNAL

SCHEMATIC DIAGRAMS (3/15)  
1U-3320 (3/4) AUDIO/DSP UNIT

**NOTICE**  
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

**WARNING:**  
Parts marked with this symbol have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a  
leakage current check or (2) a line to chassis resistance check. If the leakage  
current exceeds 0.5 milliamps, or if the resistance from chassis to either side  
of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and  
corrected.

# SCHEMATIC DIAGRAMS (3/15)

1

2

3

4

5

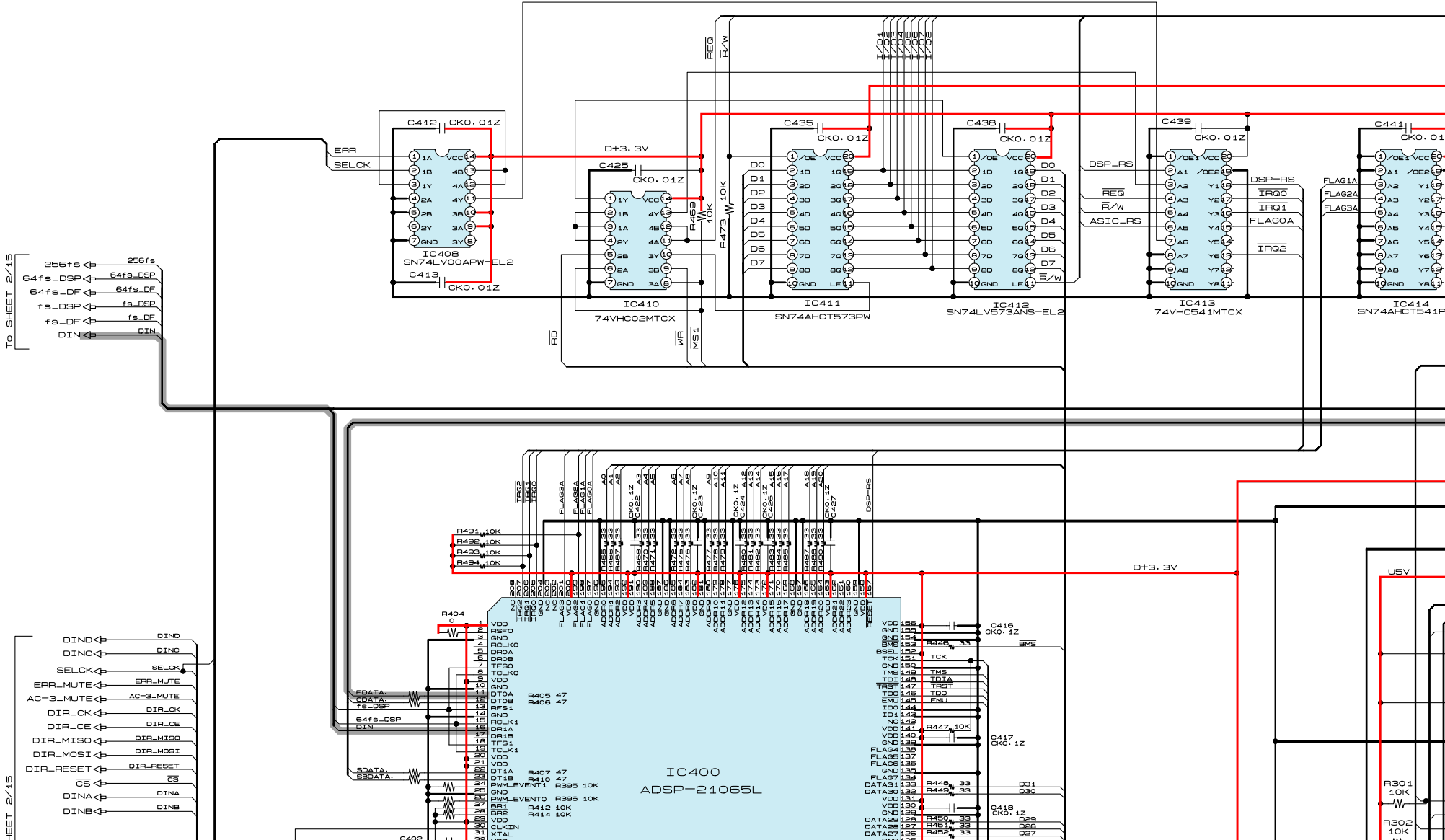
6

A

B

C

D



TO SHEET 2/15

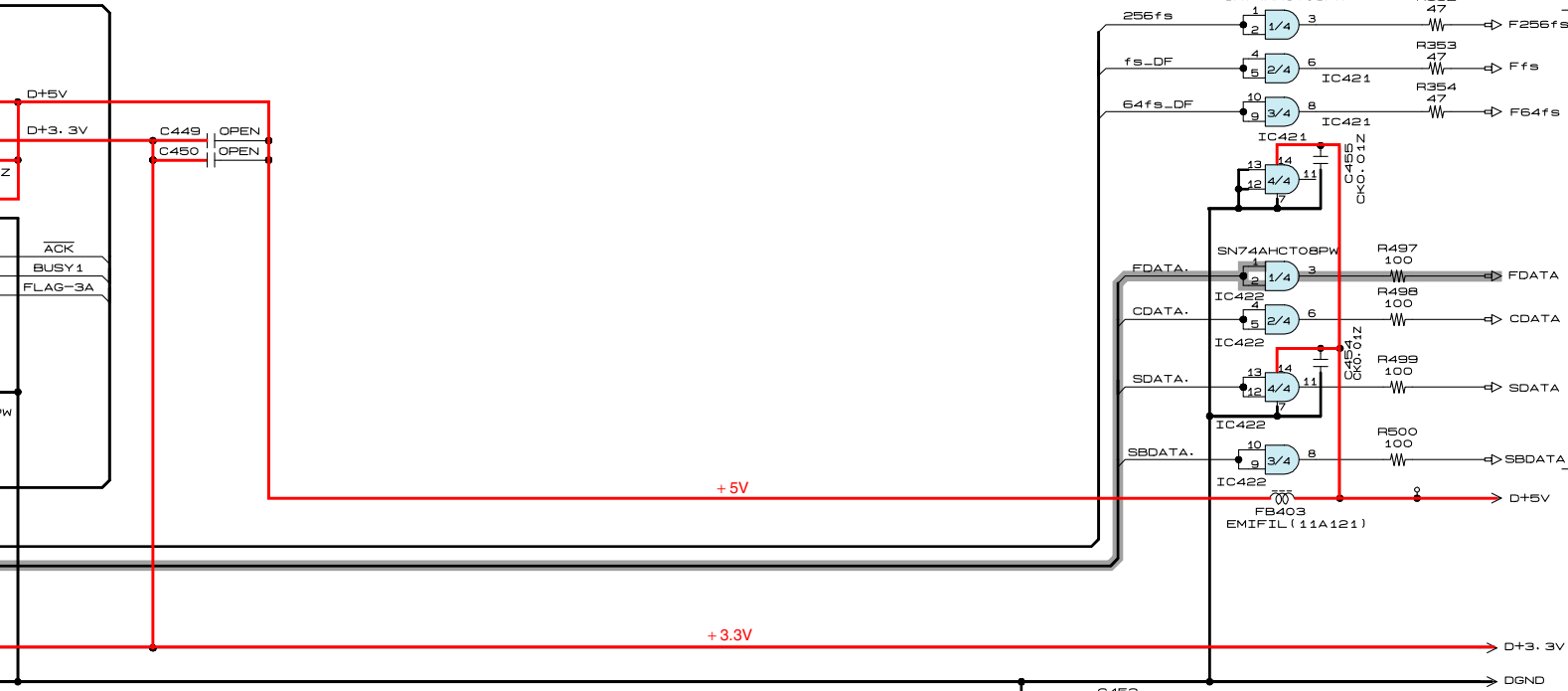
TO SHEET 2/15

- 256fs
- 64fs\_DSP
- 64fs\_DF
- fs\_DSP
- fs\_DF
- DIN

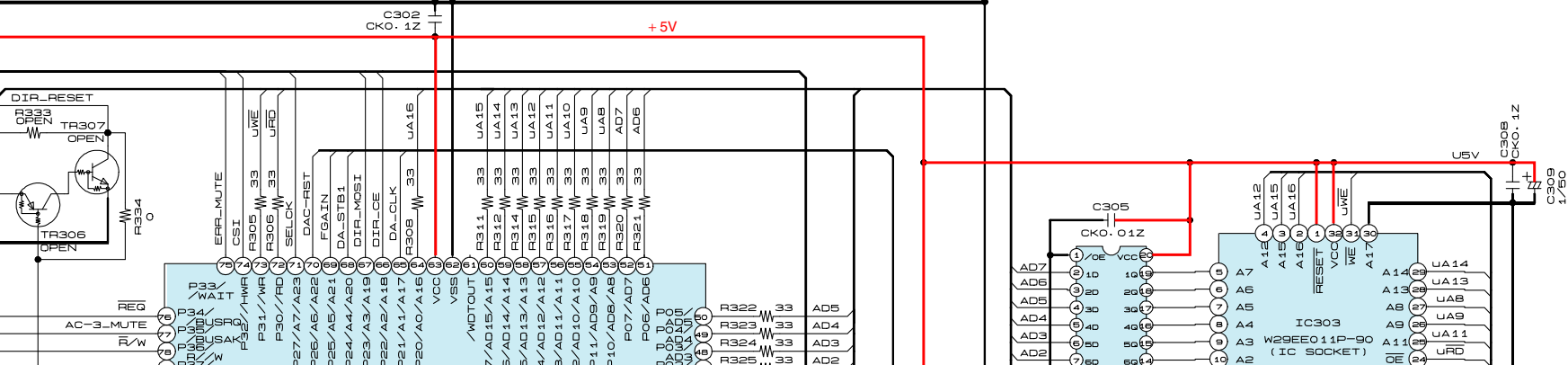
- DIND
- SELCK
- ERR\_MUTE
- AC-3\_MUTE
- DIR\_CHK
- DIR\_CE
- DIR\_MISO
- DIR\_MOSI
- DIR\_RESET
- CS
- DINA
- DINB

- IC400 ADSP-21065L
- VDD
- GND
- PSPO
- RCLKO
- DROA
- DR0B
- TF50
- TCLKO
- GND
- OTOA
- RFS1
- GND
- RCLK1
- OR1A
- OR1B
- TF51
- TCLK1
- VDD
- OTOB
- R407 47
- DT1B
- R410 47
- PWM\_EVENT1
- R395 10K
- GND
- PWM\_EVENT0
- R396 10K
- VDD
- R412 10K
- SPS
- R414 10K
- XTAL
- C402
- SQATA
- SQDATA
- DIR0
- DIR1
- DIR2
- DIR3
- DIR4
- DIR5
- DIR6
- DIR7
- DIR8
- DIR9
- DIR10
- DIR11
- DIR12
- DIR13
- DIR14
- DIR15
- DIR16
- DIR17
- DIR18
- DIR19
- DIR20
- DIR21
- DIR22
- DIR23
- DIR24
- DIR25
- DIR26
- DIR27
- DIR28
- DIR29
- DIR30
- DIR31
- DIR32
- DIR33
- DIR34
- DIR35
- DIR36
- DIR37
- DIR38
- DIR39
- DIR40
- DIR41
- DIR42
- DIR43
- DIR44
- DIR45
- DIR46
- DIR47
- DIR48
- DIR49
- DIR50
- DIR51
- DIR52
- DIR53
- DIR54
- DIR55
- DIR56
- DIR57
- DIR58
- DIR59
- DIR60
- DIR61
- DIR62
- DIR63
- DIR64
- DIR65
- DIR66
- DIR67
- DIR68
- DIR69
- DIR70
- DIR71
- DIR72
- DIR73
- DIR74
- DIR75
- DIR76
- DIR77
- DIR78
- DIR79
- DIR80
- DIR81
- DIR82
- DIR83
- DIR84
- DIR85
- DIR86
- DIR87
- DIR88
- DIR89
- DIR90
- DIR91
- DIR92
- DIR93
- DIR94
- DIR95
- DIR96
- DIR97
- DIR98
- DIR99
- DIR100
- DIR101
- DIR102
- DIR103
- DIR104
- DIR105
- DIR106
- DIR107
- DIR108
- DIR109
- DIR110
- DIR111
- DIR112
- DIR113
- DIR114
- DIR115
- DIR116
- DIR117
- DIR118
- DIR119
- DIR120
- DIR121
- DIR122
- DIR123
- DIR124
- DIR125
- DIR126
- DIR127
- DIR128
- DIR129
- DIR130
- DIR131
- DIR132
- DIR133
- DIR134
- DIR135
- DIR136
- DIR137
- DIR138
- DIR139
- DIR140
- DIR141
- DIR142
- DIR143
- DIR144
- DIR145
- DIR146
- DIR147
- DIR148
- DIR149
- DIR150
- DIR151
- DIR152
- DIR153
- DIR154
- DIR155
- DIR156
- DIR157
- DIR158
- DIR159
- DIR160
- DIR161
- DIR162
- DIR163
- DIR164
- DIR165
- DIR166
- DIR167
- DIR168
- DIR169
- DIR170
- DIR171
- DIR172
- DIR173
- DIR174
- DIR175
- DIR176
- DIR177
- DIR178
- DIR179
- DIR180
- DIR181
- DIR182
- DIR183
- DIR184
- DIR185
- DIR186
- DIR187
- DIR188
- DIR189
- DIR190
- DIR191
- DIR192
- DIR193
- DIR194
- DIR195
- DIR196
- DIR197
- DIR198
- DIR199
- DIR200
- DIR201
- DIR202
- DIR203
- DIR204
- DIR205
- DIR206
- DIR207
- DIR208
- DIR209
- DIR210
- DIR211
- DIR212
- DIR213
- DIR214
- DIR215
- DIR216
- DIR217
- DIR218
- DIR219
- DIR220
- DIR221
- DIR222
- DIR223
- DIR224
- DIR225
- DIR226
- DIR227
- DIR228
- DIR229
- DIR230
- DIR231
- DIR232
- DIR233
- DIR234
- DIR235
- DIR236
- DIR237
- DIR238
- DIR239
- DIR240
- DIR241
- DIR242
- DIR243
- DIR244
- DIR245
- DIR246
- DIR247
- DIR248
- DIR249
- DIR250
- DIR251
- DIR252
- DIR253
- DIR254
- DIR255
- DIR256
- DIR257
- DIR258
- DIR259
- DIR260
- DIR261
- DIR262
- DIR263
- DIR264
- DIR265
- DIR266
- DIR267
- DIR268
- DIR269
- DIR270
- DIR271
- DIR272
- DIR273
- DIR274
- DIR275
- DIR276
- DIR277
- DIR278
- DIR279
- DIR280
- DIR281
- DIR282
- DIR283
- DIR284
- DIR285
- DIR286
- DIR287
- DIR288
- DIR289
- DIR290
- DIR291
- DIR292
- DIR293
- DIR294
- DIR295
- DIR296
- DIR297
- DIR298
- DIR299
- DIR300
- DIR301
- DIR302
- DIR303
- DIR304
- DIR305
- DIR306
- DIR307
- DIR308
- DIR309
- DIR310
- DIR311
- DIR312
- DIR313
- DIR314
- DIR315
- DIR316
- DIR317
- DIR318
- DIR319
- DIR320
- DIR321
- DIR322
- DIR323
- DIR324
- DIR325
- DIR326
- DIR327
- DIR328
- DIR329
- DIR330
- DIR331
- DIR332
- DIR333
- DIR334
- DIR335
- DIR336
- DIR337
- DIR338
- DIR339
- DIR340
- DIR341
- DIR342
- DIR343
- DIR344
- DIR345
- DIR346
- DIR347
- DIR348
- DIR349
- DIR350
- DIR351
- DIR352
- DIR353
- DIR354
- DIR355
- DIR356
- DIR357
- DIR358
- DIR359
- DIR360
- DIR361
- DIR362
- DIR363
- DIR364
- DIR365
- DIR366
- DIR367
- DIR368
- DIR369
- DIR370
- DIR371
- DIR372
- DIR373
- DIR374
- DIR375
- DIR376
- DIR377
- DIR378
- DIR379
- DIR380
- DIR381
- DIR382
- DIR383
- DIR384
- DIR385
- DIR386
- DIR387
- DIR388
- DIR389
- DIR390
- DIR391
- DIR392
- DIR393
- DIR394
- DIR395
- DIR396
- DIR397
- DIR398
- DIR399
- DIR400
- DIR401
- DIR402
- DIR403
- DIR404
- DIR405
- DIR406
- DIR407
- DIR408
- DIR409
- DIR410
- DIR411
- DIR412
- DIR413
- DIR414
- DIR415
- DIR416
- DIR417
- DIR418
- DIR419
- DIR420
- DIR421
- DIR422
- DIR423
- DIR424
- DIR425
- DIR426
- DIR427
- DIR428
- DIR429
- DIR430
- DIR431
- DIR432
- DIR433
- DIR434
- DIR435
- DIR436
- DIR437
- DIR438
- DIR439
- DIR440
- DIR441
- DIR442
- DIR443
- DIR444
- DIR445
- DIR446
- DIR447
- DIR448
- DIR449
- DIR450
- DIR451
- DIR452
- DIR453
- DIR454
- DIR455
- DIR456
- DIR457
- DIR458
- DIR459
- DIR460
- DIR461
- DIR462
- DIR463
- DIR464
- DIR465
- DIR466
- DIR467
- DIR468
- DIR469
- DIR470
- DIR471
- DIR472
- DIR473
- DIR474
- DIR475
- DIR476
- DIR477
- DIR478
- DIR479
- DIR480
- DIR481
- DIR482
- DIR483
- DIR484
- DIR485
- DIR486
- DIR487
- DIR488
- DIR489
- DIR490
- DIR491
- DIR492
- DIR493
- DIR494
- DIR495
- DIR496
- DIR497
- DIR498
- DIR499
- DIR500
- DIR501
- DIR502
- DIR503
- DIR504
- DIR505
- DIR506
- DIR507
- DIR508
- DIR509
- DIR510
- DIR511
- DIR512
- DIR513
- DIR514
- DIR515
- DIR516
- DIR517
- DIR518
- DIR519
- DIR520
- DIR521
- DIR522
- DIR523
- DIR524
- DIR525
- DIR526
- DIR527
- DIR528
- DIR529
- DIR530
- DIR531
- DIR532
- DIR533
- DIR534
- DIR535
- DIR536
- DIR537
- DIR538
- DIR539
- DIR540
- DIR541
- DIR542
- DIR543
- DIR544
- DIR545
- DIR546
- DIR547
- DIR548
- DIR549
- DIR550
- DIR551
- DIR552
- DIR553
- DIR554
- DIR555
- DIR556
- DIR557
- DIR558
- DIR559
- DIR560
- DIR561
- DIR562
- DIR563
- DIR564
- DIR565
- DIR566
- DIR567
- DIR568
- DIR569
- DIR570
- DIR571
- DIR572
- DIR573
- DIR574
- DIR575
- DIR576
- DIR577
- DIR578
- DIR579
- DIR580
- DIR581
- DIR582
- DIR583
- DIR584
- DIR585
- DIR586
- DIR587
- DIR588
- DIR589
- DIR590
- DIR591
- DIR592
- DIR593
- DIR594
- DIR595
- DIR596
- DIR597
- DIR598
- DIR599
- DIR600
- DIR601
- DIR602
- DIR603
- DIR604
- DIR605
- DIR606
- DIR607
- DIR608
- DIR609
- DIR610
- DIR611
- DIR612
- DIR613
- DIR614
- DIR615
- DIR616
- DIR617
- DIR618
- DIR619
- DIR620
- DIR621
- DIR622
- DIR623
- DIR624
- DIR625
- DIR626
- DIR627
- DIR628
- DIR629
- DIR630
- DIR631
- DIR632
- DIR633
- DIR634
- DIR635
- DIR636
- DIR637
- DIR638
- DIR639
- DIR640
- DIR641
- DIR642
- DIR643
- DIR644
- DIR645
- DIR646
- DIR647
- DIR648
- DIR649
- DIR650
- DIR651
- DIR652
- DIR653
- DIR654
- DIR655
- DIR656
- DIR657
- DIR658
- DIR659
- DIR660
- DIR661
- DIR662
- DIR663
- DIR664
- DIR665
- DIR666
- DIR667
- DIR668
- DIR669
- DIR670
- DIR671
- DIR672
- DIR673
- DIR674
- DIR675
- DIR676
- DIR677
- DIR678
- DIR679
- DIR680
- DIR681
- DIR682
- DIR683
- DIR684
- DIR685
- DIR686
- DIR687
- DIR688
- DIR689
- DIR690
- DIR691
- DIR692
- DIR693
- DIR694
- DIR695
- DIR696
- DIR697
- DIR698
- DIR699
- DIR700
- DIR701
- DIR702
- DIR703
- DIR704
- DIR705
- DIR706
- DIR707
- DIR708
- DIR709
- DIR710
- DIR711
- DIR712
- DIR713
- DIR714
- DIR715
- DIR716
- DIR717
- DIR718
- DIR719
- DIR720
- DIR721
- DIR722
- DIR723
- DIR724
- DIR725
- DIR726
- DIR727
- DIR728
- DIR729
- DIR730
- DIR731
- DIR732
- DIR733
- DIR734
- DIR735
- DIR736
- DIR737
- DIR738
- DIR739
- DIR740
- DIR741
- DIR742
- DIR743
- DIR744
- DIR745
- DIR746
- DIR747
- DIR748
- DIR749
- DIR750
- DIR751
- DIR752
- DIR753
- DIR754
- DIR755
- DIR756
- DIR757
- DIR758
- DIR759
- DIR760
- DIR761
- DIR762
- DIR763
- DIR764
- DIR765
- DIR766
- DIR767
- DIR768
- DIR769
- DIR770
- DIR771
- DIR772
- DIR773
- DIR774
- DIR775
- DIR776
- DIR777
- DIR778
- DIR779
- DIR780
- DIR781
- DIR782
- DIR783
- DIR784
- DIR785
- DIR786
- DIR787
- DIR788
- DIR789
- DIR790
- DIR791
- DIR792
- DIR793
- DIR794
- DIR795
- DIR796
- DIR797
- DIR798
- DIR799
- DIR800
- DIR801
- DIR802
- DIR803
- DIR804
- DIR805
- DIR806
- DIR807
- DIR808
- DIR809
- DIR810
- DIR811
- DIR812
- DIR813
- DIR814
- DIR815
- DIR816
- DIR817
- DIR818
- DIR819
- DIR820
- DIR821
- DIR822
- DIR823
- DIR824
- DIR825
- DIR826
- DIR827
- DIR828
- DIR829
- DIR830
- DIR831
- DIR832
- DIR833
- DIR834
- DIR835
- DIR836
- DIR837
- DIR838
- DIR839
- DIR840
- DIR841
- DIR842
- DIR843
- DIR844
- DIR845
- DIR846
- DIR847
- DIR848
- DIR849
- DIR850
- DIR851
- DIR852
- DIR853
- DIR854
- DIR855
- DIR856
- DIR857
- DIR858
- DIR859
- DIR860
- DIR861
- DIR862
- DIR863
- DIR864
- DIR865
- DIR866
- DIR867
- DIR868
- DIR869
- DIR870
- DIR871
- DIR872
- DIR873
- DIR874
- DIR875
- DIR876
- DIR877
- DIR878
- DIR879
- DIR880
- DIR881
- DIR882
- DIR883
- DIR884
- DIR885
- DIR886
- DIR887
- DIR888
- DIR889
- DIR890
- DIR891
- DIR892
- DIR893
- DIR894
- DIR895
- DIR896
- DIR897
- DIR898
- DIR899
- DIR900
- DIR901
- DIR902
- DIR903
- DIR904
- DIR905
- DIR906
- DIR907
- DIR908
- DIR909
- DIR910
- DIR911
- DIR912
- DIR913
- DIR914
- DIR915
- DIR916
- DIR917
- DIR918
- DIR919
- DIR920
- DIR921
- DIR922
- DIR923
- DIR924
- DIR925
- DIR926
- DIR927
- DIR928
- DIR929
- DIR930
- DIR931
- DIR932
- DIR933
- DIR934
- DIR935
- DIR936
- DIR937
- DIR938
- DIR939
- DIR940
- DIR941
- DIR942
- DIR943
- DIR944
- DIR945
- DIR946
- DIR947
- DIR948
- DIR949
- DIR950
- DIR951
- DIR952
- DIR953
- DIR954
- DIR955
- DIR956
- DIR957
- DIR958
- DIR959
- DIR960
- DIR961
- DIR962
- DIR963
- DIR964
- DIR965
- DIR966
- DIR967
- DIR968
- DIR969
- DIR970
- DIR971
- DIR972
- DIR973
- DIR974
- DIR975
- DIR976
- DIR977
- DIR978
- DIR979
- DIR980
- DIR981
- DIR982
- DIR983
- DIR984
- DIR985
- DIR986
- DIR987
- DIR988
- DIR989
- DIR990
- DIR991
- DIR992
- DIR993
- DIR994
- DIR995
- DIR996
- DIR997
- DIR998
- DIR999
- DIR1000

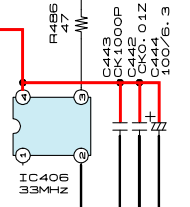
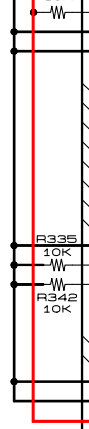
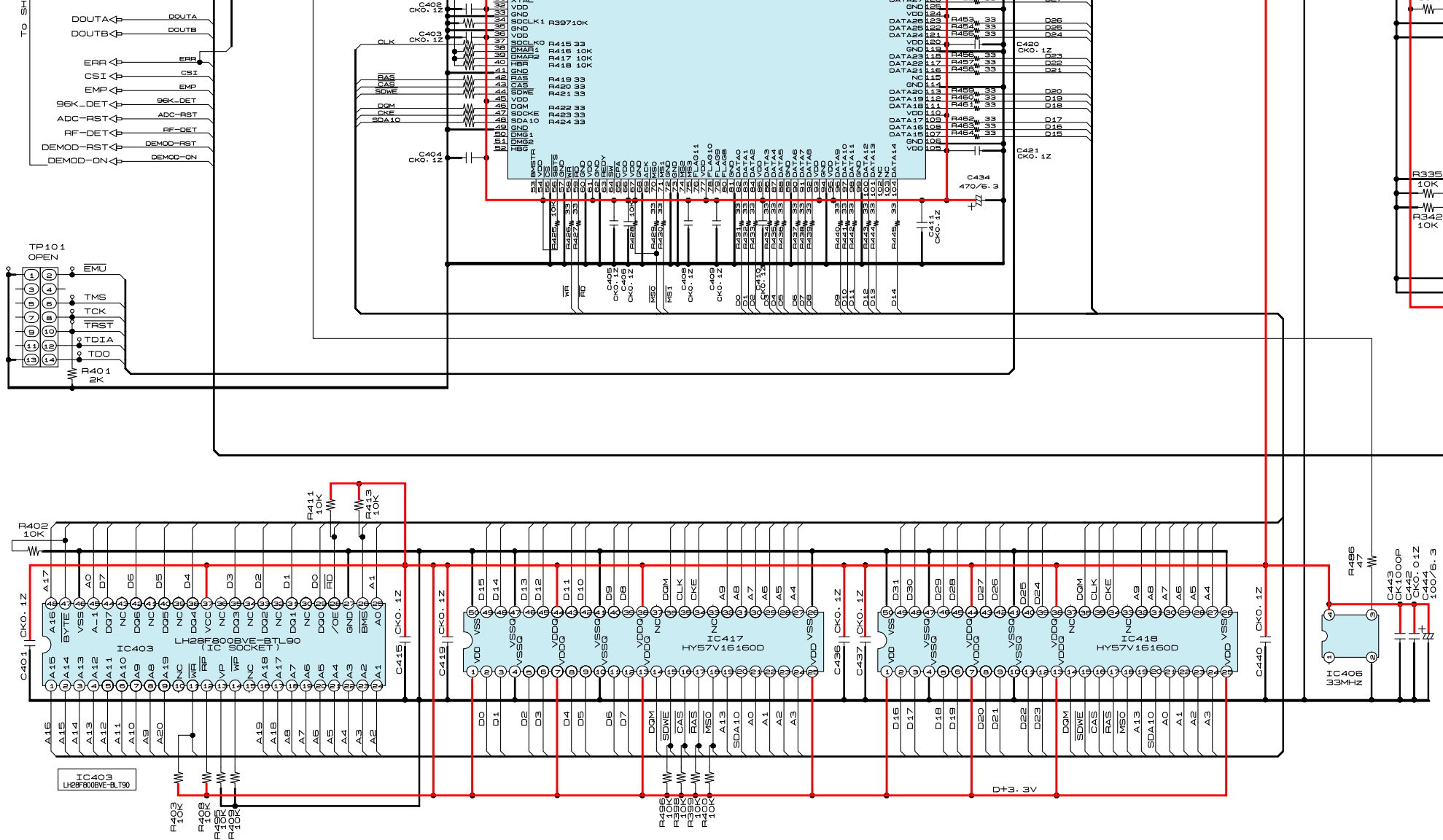
USV

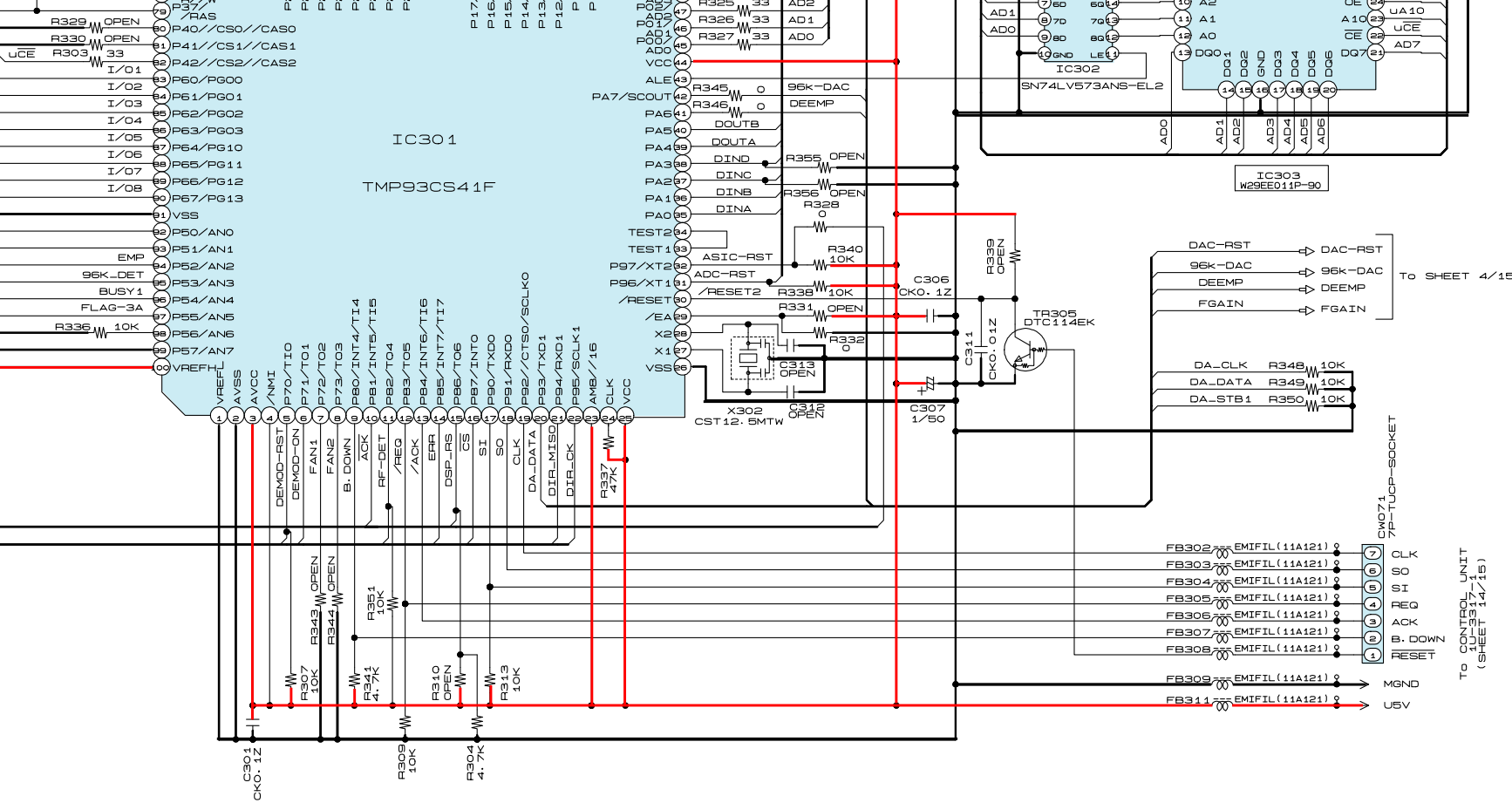


To SHEET 4/15









1U-3320 (3/4)  
AUDIO/DSP UNIT

— + B LINE  
— SIGNAL

**SCHEMATIC DIAGRAMS (3/15)**  
1U-3320 (3/4) AUDIO/DSP UNIT

**NOTICE**  
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

**WARNING:**  
Parts marked with this symbol have critical characteristics. Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and corrected.

To SHEET 4/15

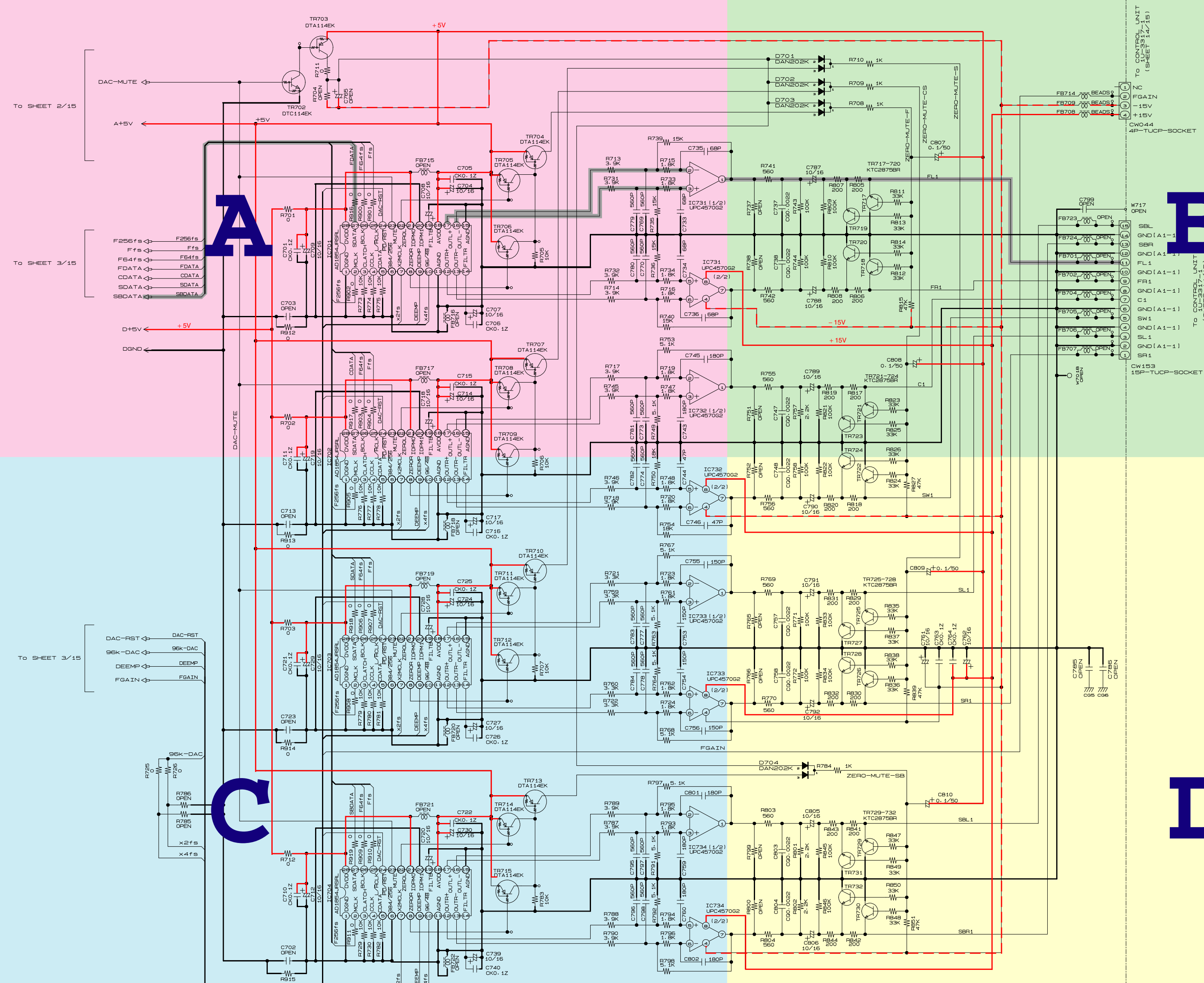
To CONTROL UNIT  
(SHEET 14/15)

SCHEMATIC DIAGRAMS (4/15)

1 2 3 4 5 6 7 8 9 10 11

1U-3320 (4/4)  
AUDIO/DSP UNIT

	C709, 713, C715, 723	FB715, 717, FB719, 721
USA CAN/CA	10/16	—
EUROPE ASIA	220/10	1000p
TAIWAN R.O.C		



— + B LINE  
 - - - - - B LINE  
 ——— SIGNAL

**NOTICE**  
 ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
 CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
 NOTICE.

**WARNING:**  
 Parts marked with this symbol  $\Delta$  have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**  
 Before returning the unit to the customer, make sure you make either (1) a  
 leakage current check or (2) a line to chassis resistance check. If the leakage  
 current exceeds 0.5 milliamps, or if the resistance from chassis to either side  
 of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
 DO NOT return the unit to the customer until the problem is located and  
 corrected.

# SCHEMATIC DIAGRAMS (4/15)

1

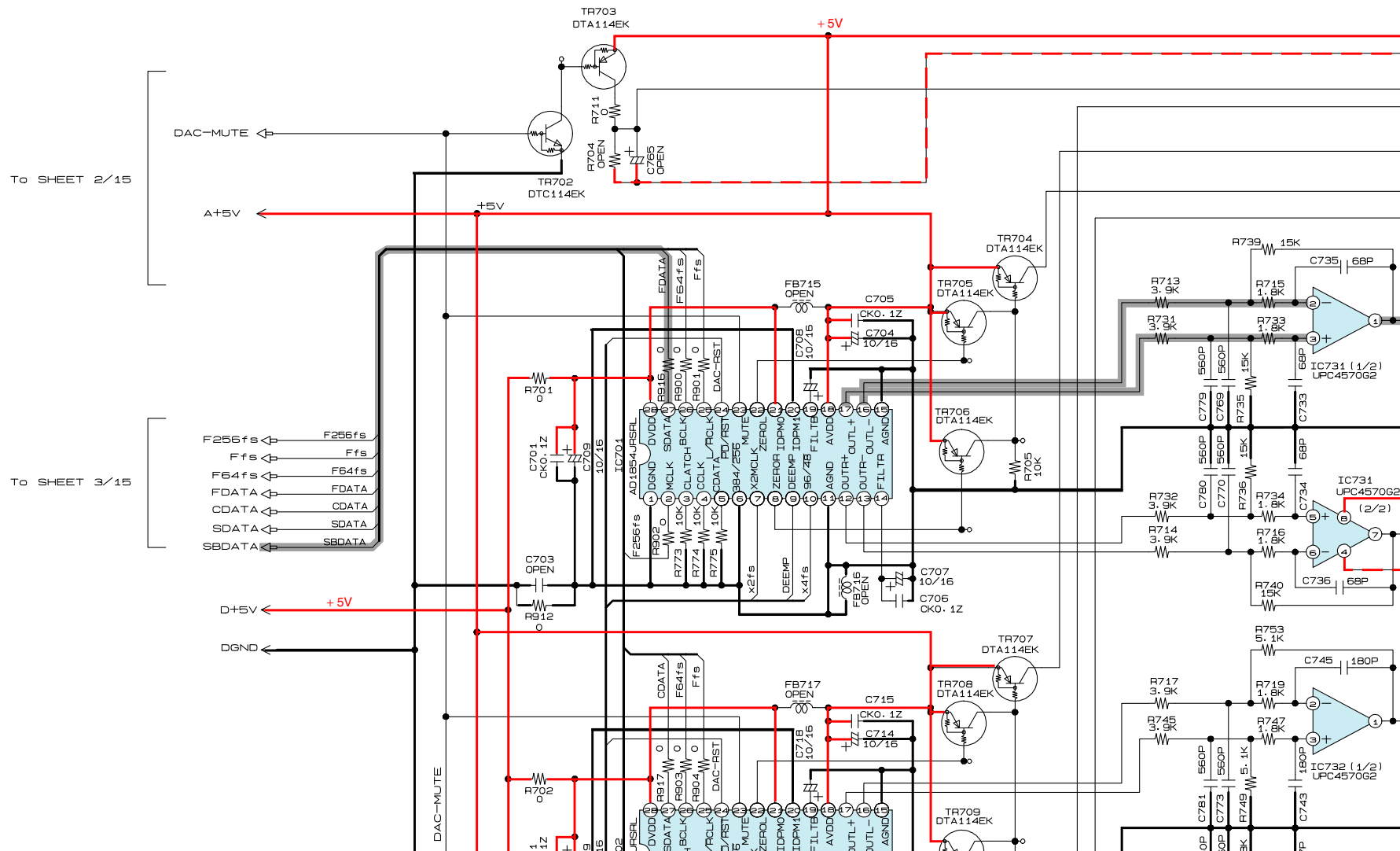
2

3

4

5

## 1U-3320 (4/4) AUDIO/DSP UNIT



6

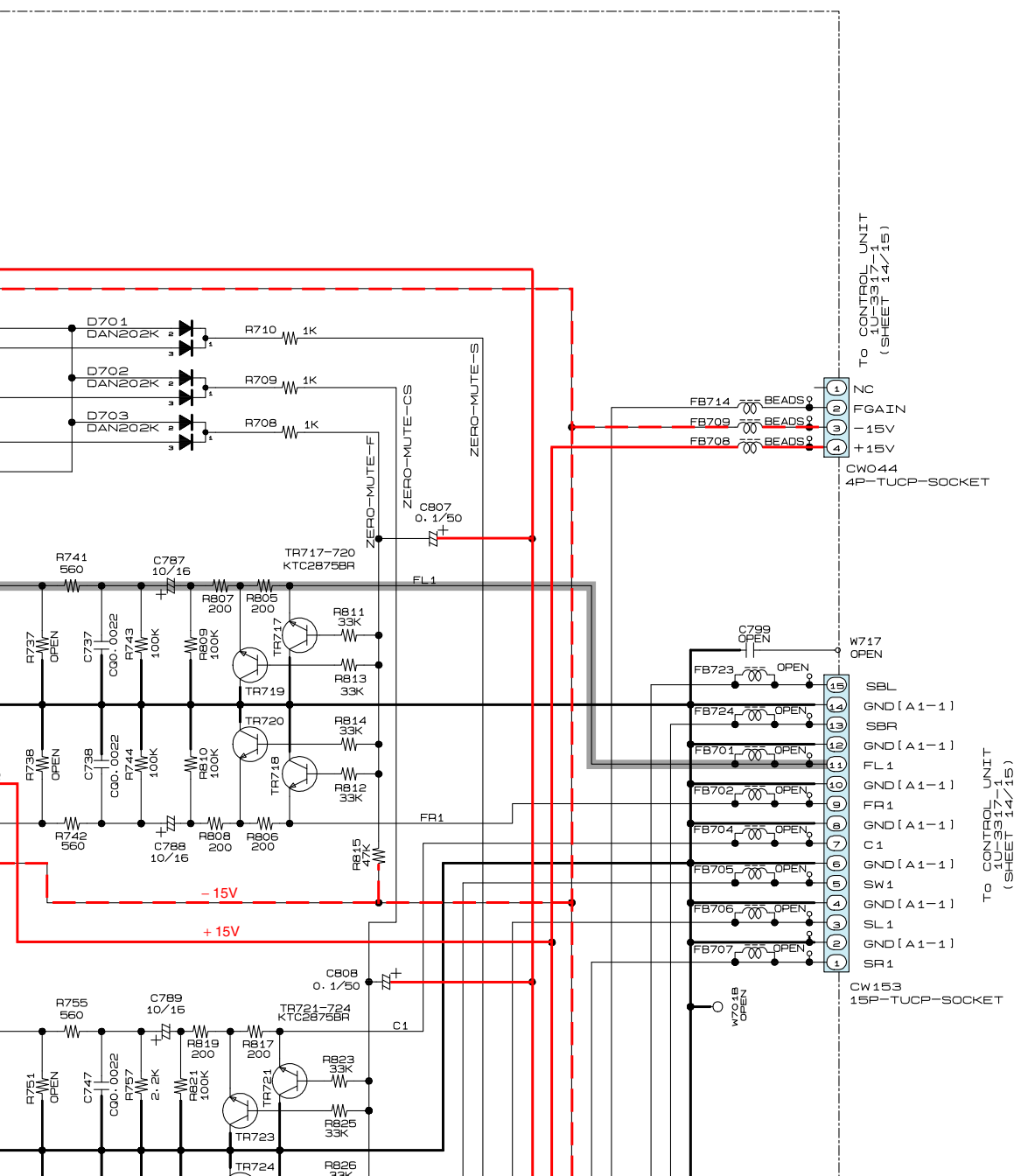
7

8

9

10

11



	C709, 712 C719, 729	FB715, 717 FB719, 721
USA CAN/CA	10/16	—
EUROPE ASIA TAIWAN R.O.C	220/10	1000p

TO CONTROL UNIT  
(SHEET 14/15)

- ① NC
- ② FGAIN
- ③ -15V
- ④ +15V

CW044  
4P-TUCP-SOCKET

W717  
OPEN

- ⑮ SBL
- ⑭ GND [A1-1]
- ⑬ SBR
- ⑫ GND [A1-1]
- ⑪ FL1
- ⑩ GND [A1-1]
- ⑨ FR1
- ⑧ GND [A1-1]
- ⑦ C1
- ⑥ GND [A1-1]
- ⑤ SW1
- ④ GND [A1-1]
- ③ SL1
- ② GND [A1-1]
- ① SR1

CW153  
15P-TUCP-SOCKET

TO CONTROL UNIT  
(SHEET 14/15)

A

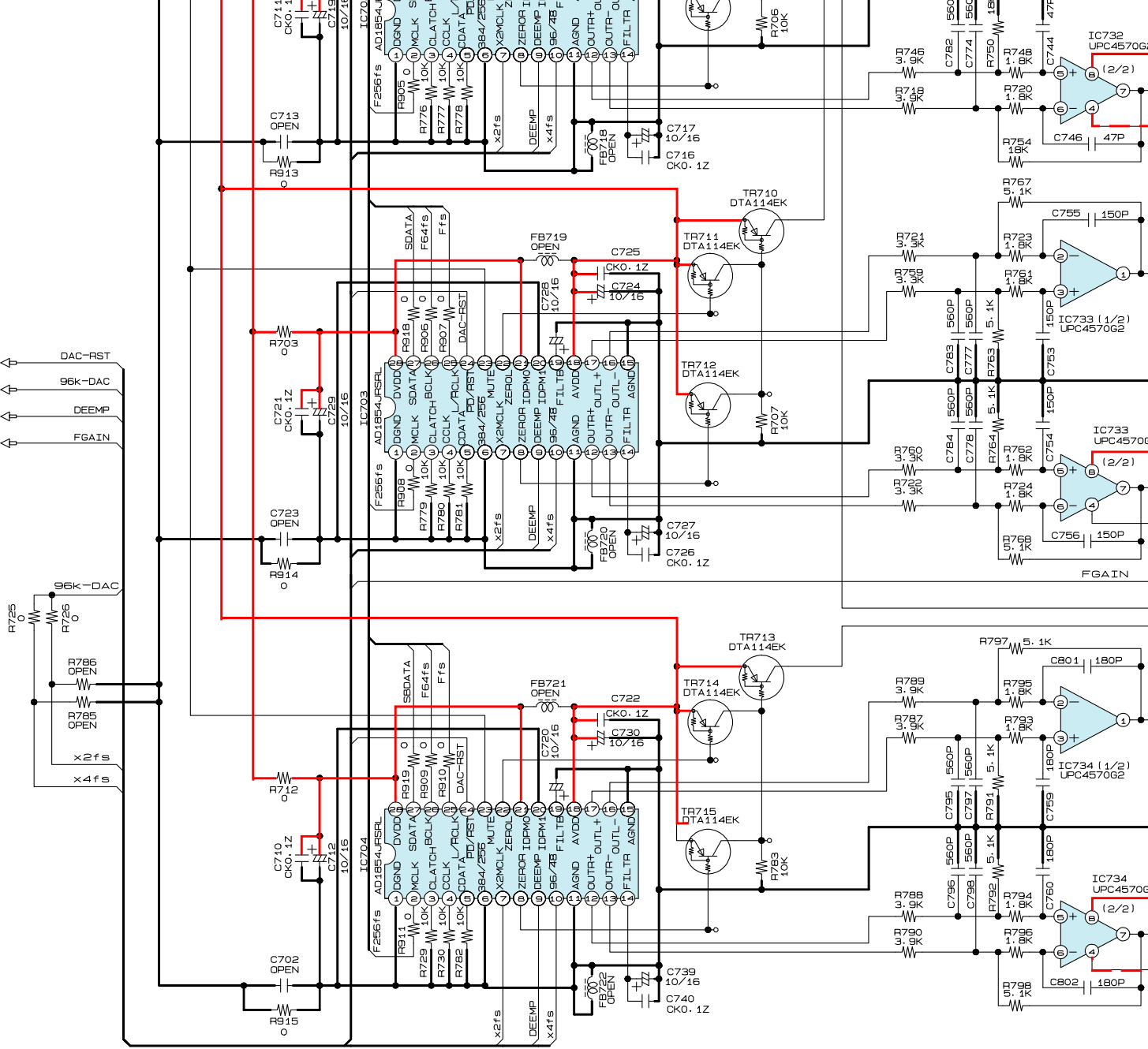
B

C

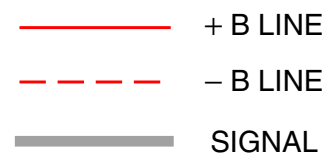
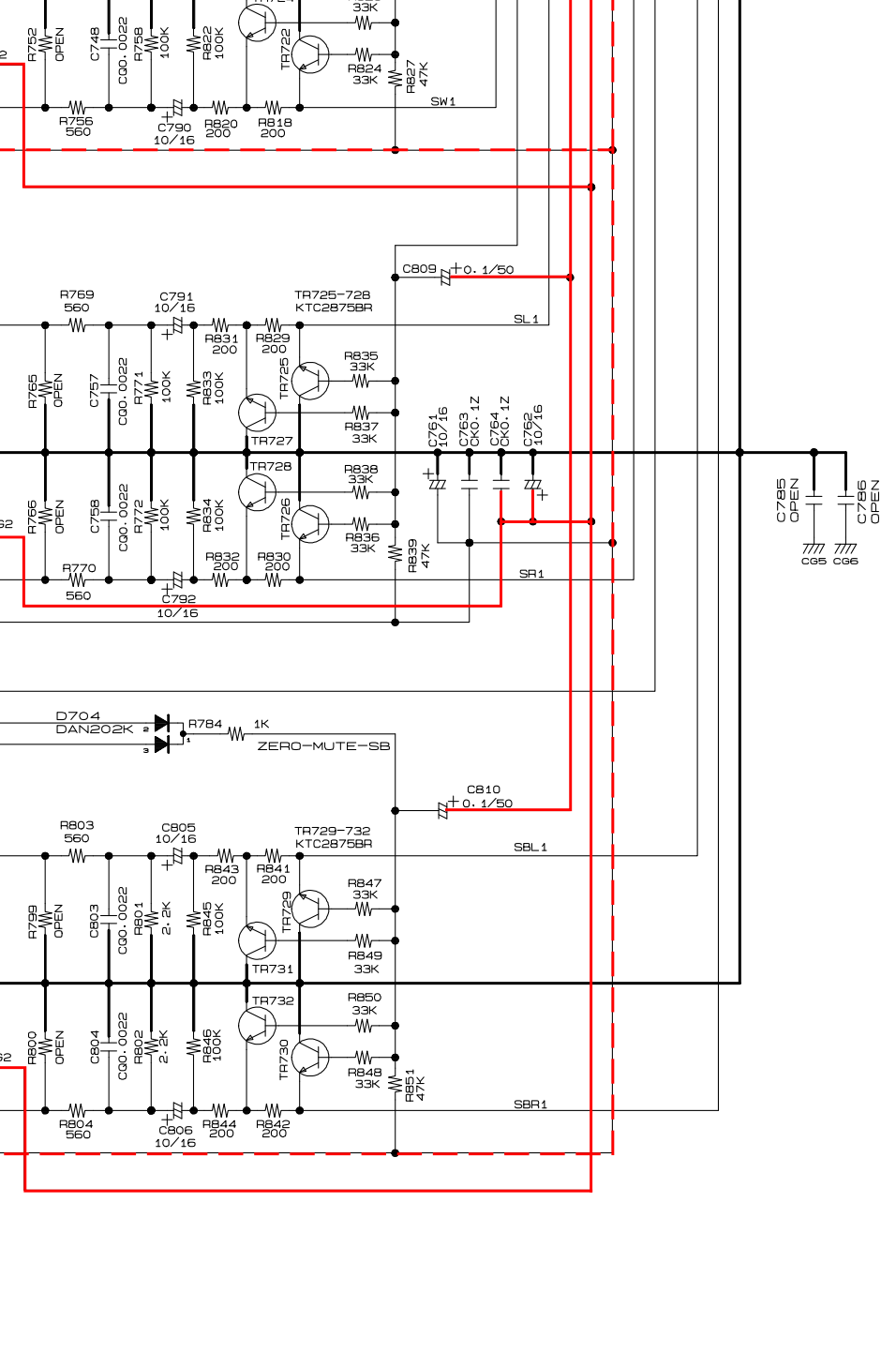
D

TO SHEET 3/15


DAC-RST ← DAC-RST  
96K-DAC ← 96K-DAC  
DEEMP ← DEEMP  
FGAIN ← FGAIN







**NOTICE**  
 ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
 CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
 NOTICE.

**WARNING:**  
 Parts marked with this symbol  have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**  
 Before returning the unit to the customer, make sure you make either (1) a  
 leakage current check or (2) a line to chassis resistance check. If the leakage  
 current exceeds 0.5 milliamps, or if the resistance from chassis to either side  
 of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
 DO NOT return the unit to the customer until the problem is located and  
 corrected.

**SCHEMATIC DIAGRAMS (4/15)**  
 1U-3320 (4/4) AUDIO DSP UNIT

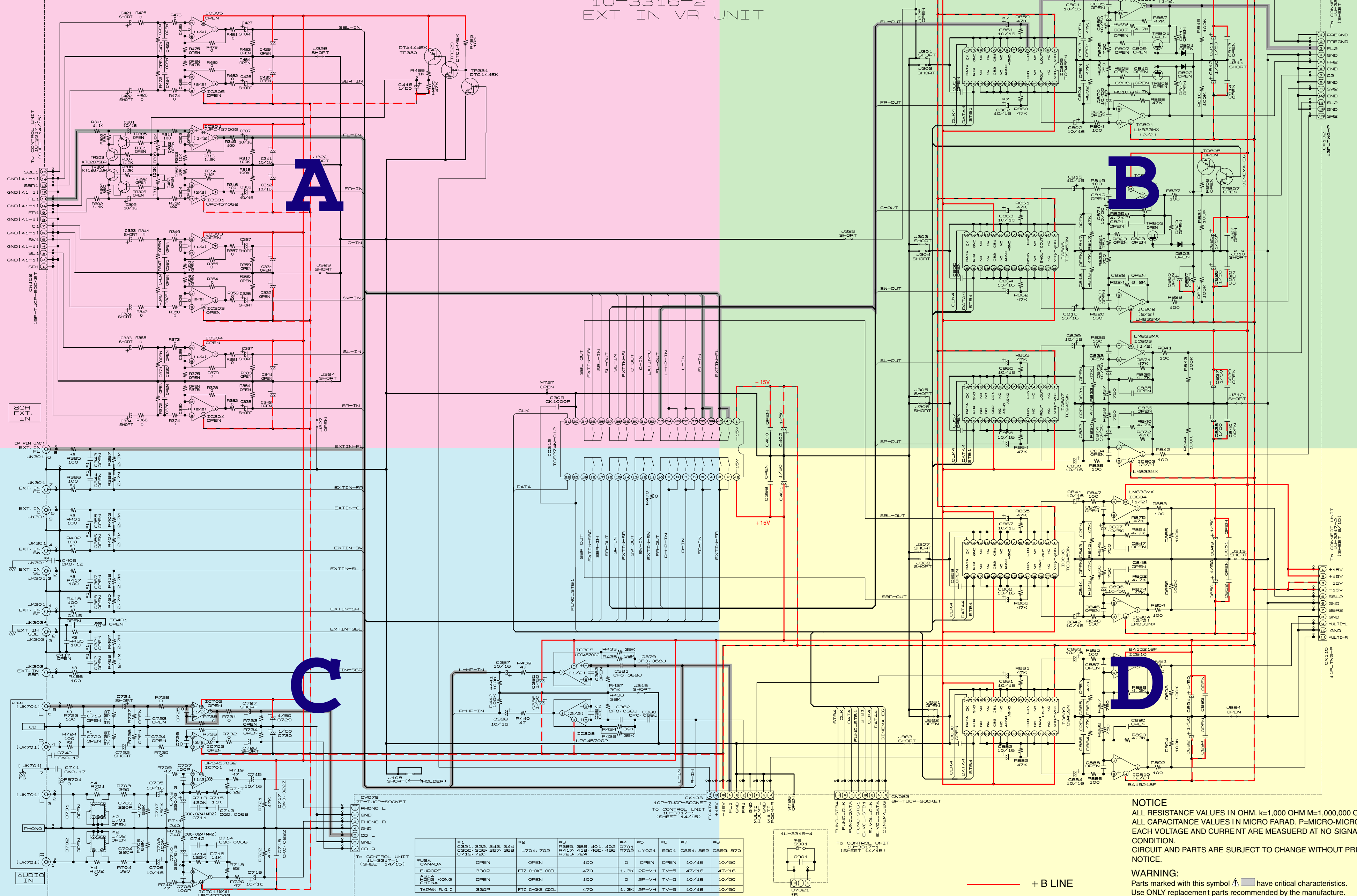
E  
F  
G  
H

SCHEMATIC DIAGRAMS (5/15)

1 2 3 4 5 6 7 8 9 10 11

A B C D E F G H

1U-3316-2  
EXT IN VR UNIT



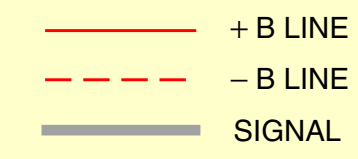
A

B

C

D

	*1	*2	*3	*4	*5	*6	*7	*8
USA	C321, 322, 343, 344	L701, 702	R395, 396, 401, 402	R701	CY021	S901	CB61, 662	CB69, 670
CANADA	OPEN	OPEN	100	0	OPEN	OPEN	10/16	10/50
EUROPE	330P	FTZ CHOKE COIL	470	1.3K	2P-VH	TV-5	47/16	47/16
ASIA	OPEN	OPEN	100	0	2P-VH	TV-5	10/16	10/50
CHINA	OPEN	OPEN	100	0	2P-VH	TV-5	10/16	10/50
TAIWAN R.O.C.	330P	FTZ CHOKE COIL	470	1.3K	2P-VH	TV-5	10/16	10/50



**NOTICE**  
 ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

**WARNING:**  
 Parts marked with this symbol have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**  
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
 DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAMS (5/15)  
1U-3316 EXT IN VR UNIT

# SCHEMATIC DIAGRAMS (5/15)

1

2

3

4

5

6

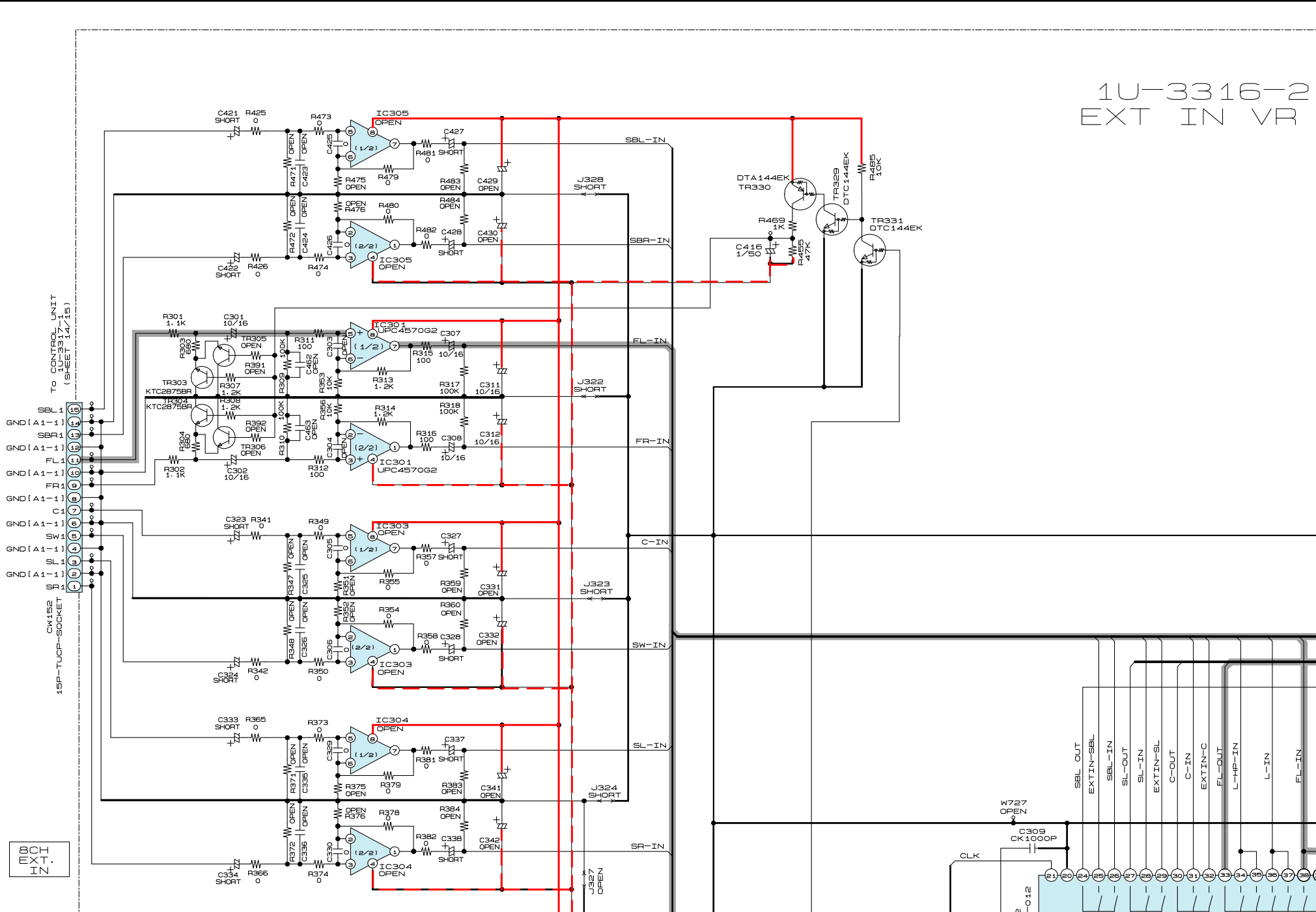
1U-3316-2  
EXT IN VR

A

B

C

D



To CONTROL UNIT  
(SHEET 14/15)

SBL 1  
GND [A1-1]  
SBR 1  
GND [A1-1]  
FL 1  
GND [A1-1]  
FR 1  
GND [A1-1]  
C 1  
GND [A1-1]  
SW 1  
GND [A1-1]  
SL 1  
GND [A1-1]

CW152  
SOCKET

8CH  
EXT.  
IN

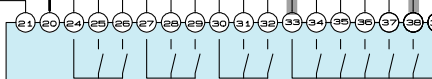
6P-FIN JACK

15P-TUCP-SOCKET

CLK

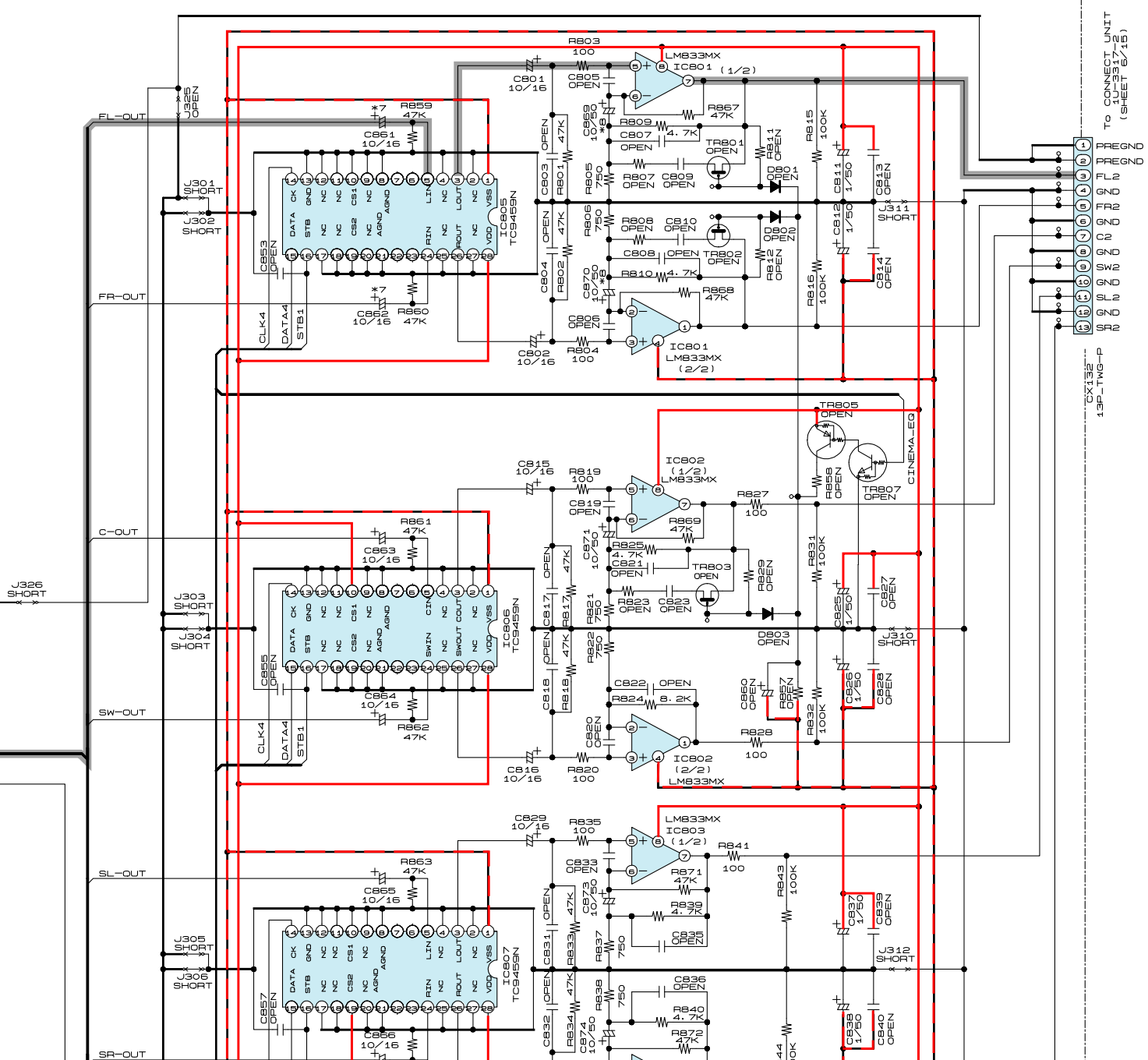
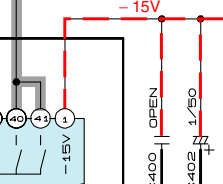
C309  
CK100OP

1U-3316-2



UNIT

EXTINFL



CX132  
13P-TW6-P

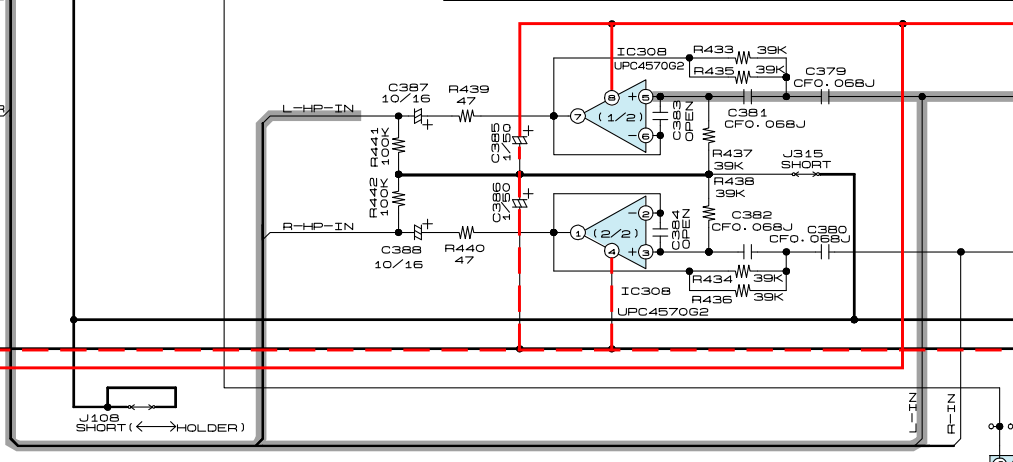
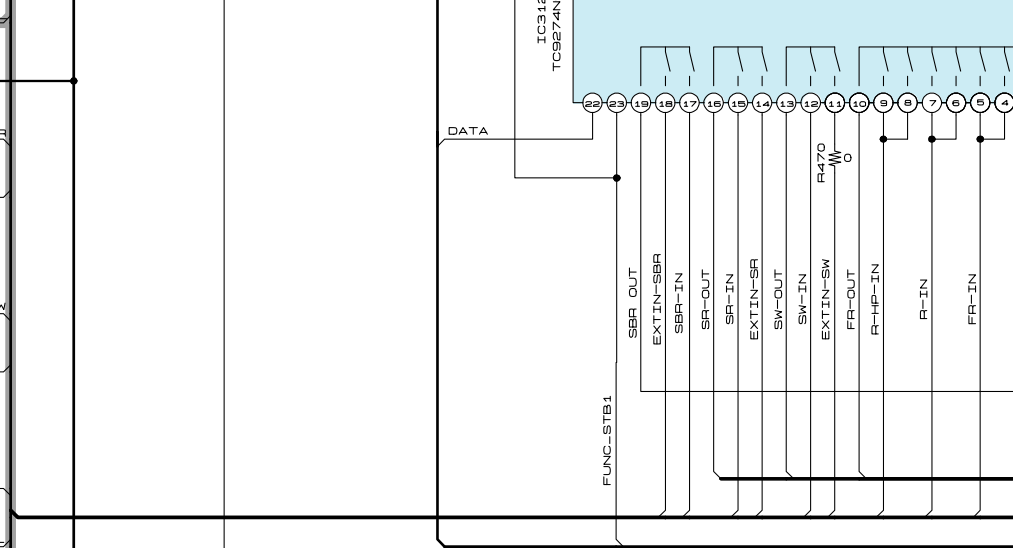
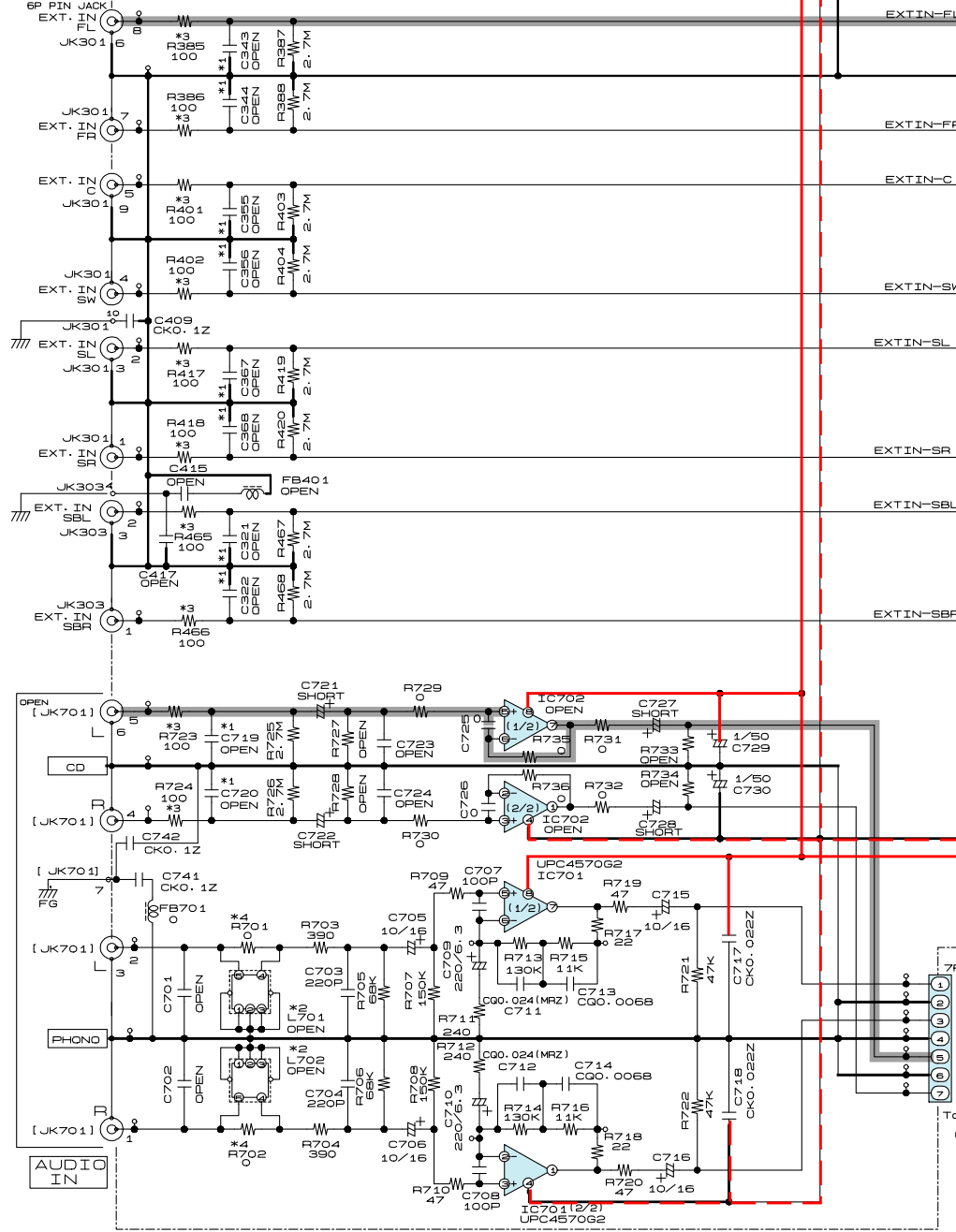
TO CONNECT UNIT  
(1U-3317-2)  
(SHEET 6/15)

E

F

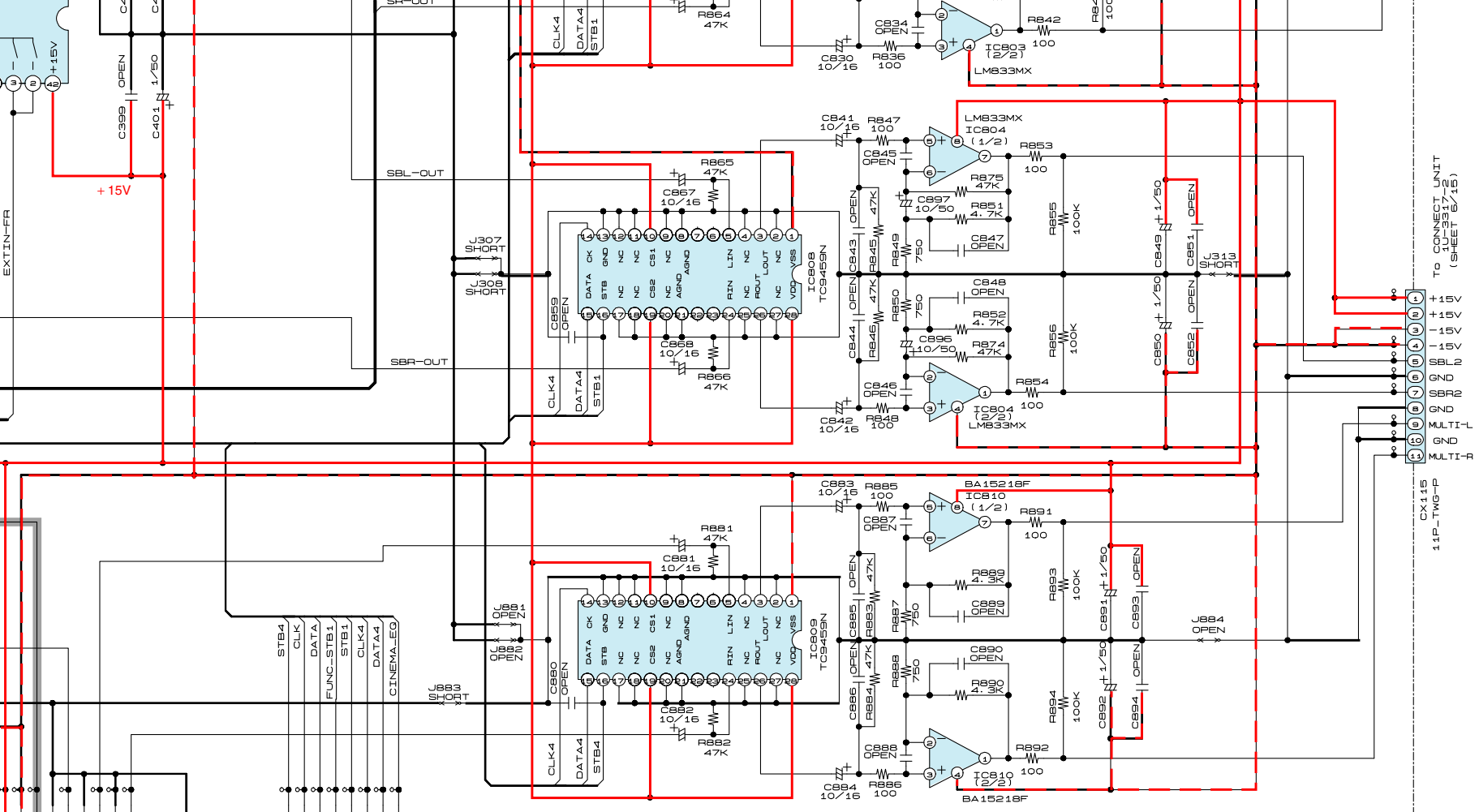
G

H

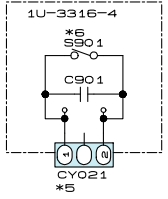


	*1	*2	*3	*4	*5	*6	*7
*USA	R321, 322, 343, 344	L701, 702	R395, 396, 401, 402	R701, R702	CY021	S901	C851, 862
CANADA	C355, 356, 367, 368		R471, 418, 465, 466				
EUROPE	C719, 720						
ASIA							
HONG KONG							
CHINA							
TAIWAN R.O.C							





*8
C869, 870
10/50
47/16
10/50
10/50



To CONTROL UNIT  
1U-3317-2  
(SHEET 14/15)

- + B LINE
- - - - B LINE
- SIGNAL

**NOTICE**  
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

**WARNING:**  
Parts marked with this symbol have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a  
leakage current check or (2) a line to chassis resistance check. If the leakage  
current exceeds 0.5 milliamps, or if the resistance from chassis to either side  
of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and  
corrected.

**SCHEMATIC DIAGRAMS (5/15)**  
1U-3316 EXT IN VR UNIT

To CONNECT UNIT  
1U-3317-2  
(SHEET 6/15)





# SCHEMATIC DIAGRAMS (6/15)

1

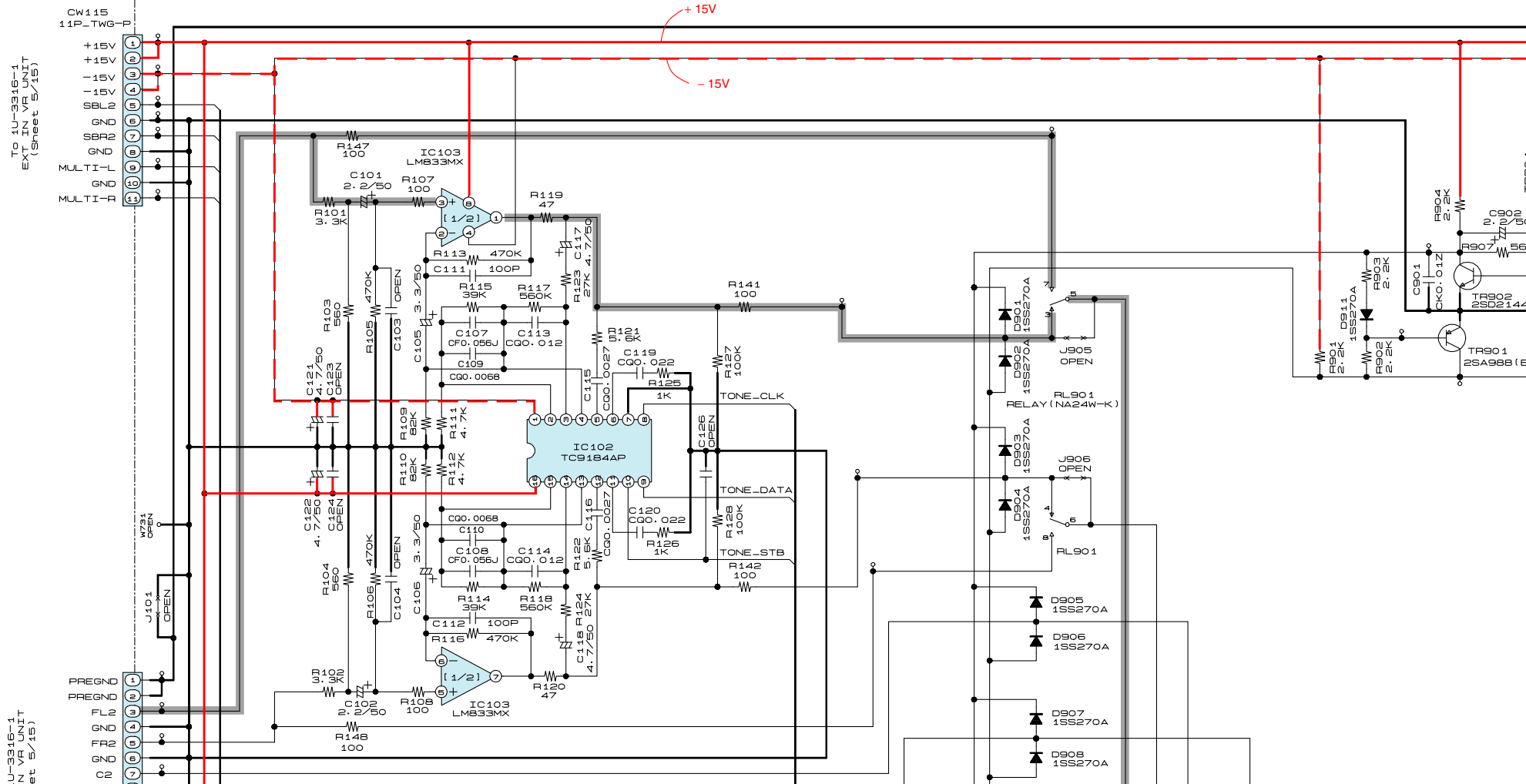
2

3

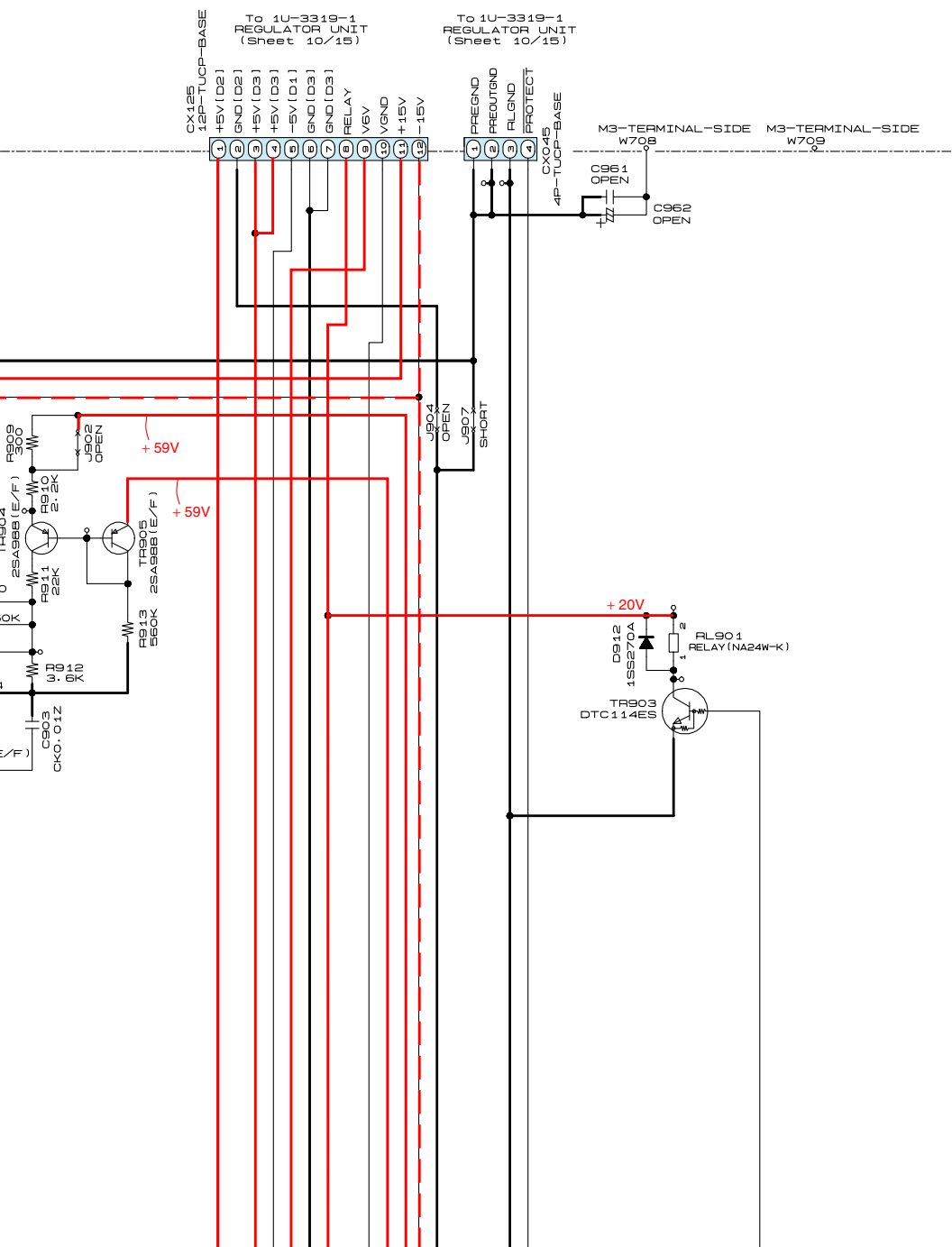
4

5

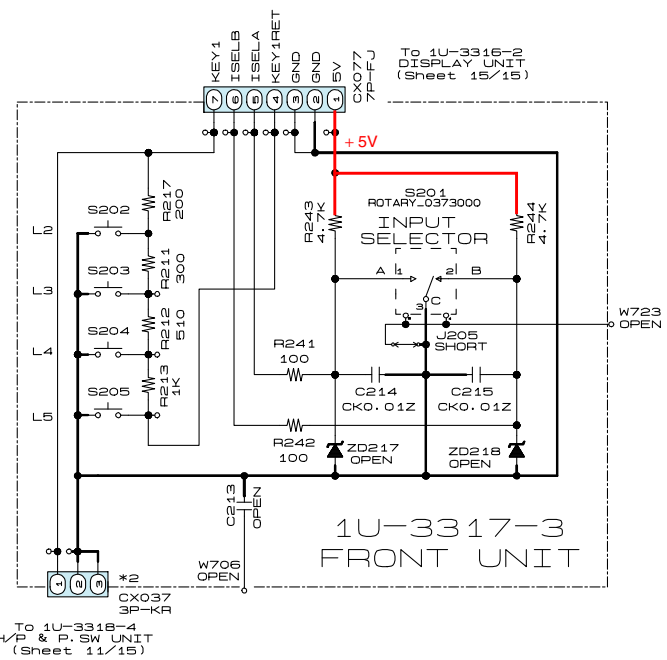
## 1U-3317-2 CONNECT UNIT



6 7 8 9 10 11



	K1
L2	SOURCE
L3	TUNING PRESET
L4	REC
L5	MULTI



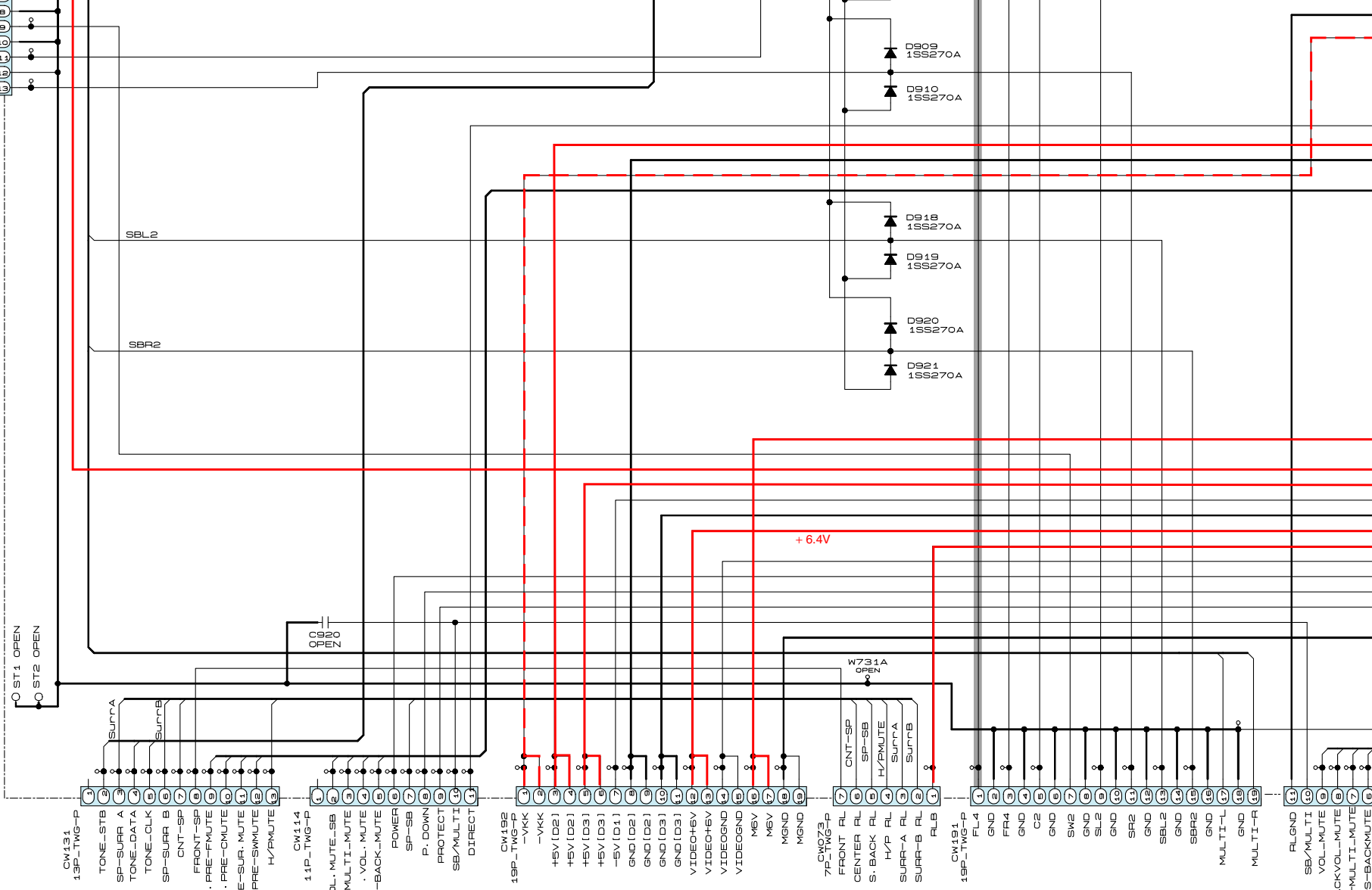
A

B

C

D

9  
SW 2 0  
GND 0  
SL 2 0  
SR 2 0  
CW132  
13P\_TWG-P



ST1 OPEN  
ST2 OPEN

CW131  
13P\_TWG-P  
TONE-STB  
SP-SURR A  
TONE-DATA  
TONE-CLK  
SP-SURR B  
CNT-SP  
FRONT-SP  
PRE-FMUTE  
PRE-CMUTE  
PRE-SUR. MUTE  
PRE-SMUTE  
H/PMUTE

CW114  
11P\_TWG-P  
VOL. MUTE-SB  
PRE-MULTI-MUTE  
VOL. MUTE  
PRE-S-BACK-MUTE  
POWER  
SP-SB  
P. DOWN  
PROTECT  
SB/MULTI  
DIRECT

To 1U-3317-1  
CONTROL UNIT  
(Sheet 14/15)

To 1U-3317-1  
CONTROL UNIT  
(Sheet 14/15)

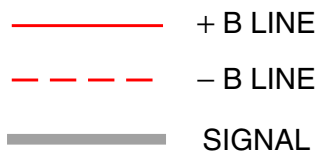
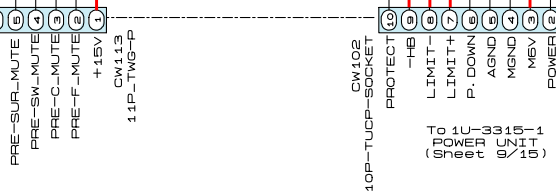
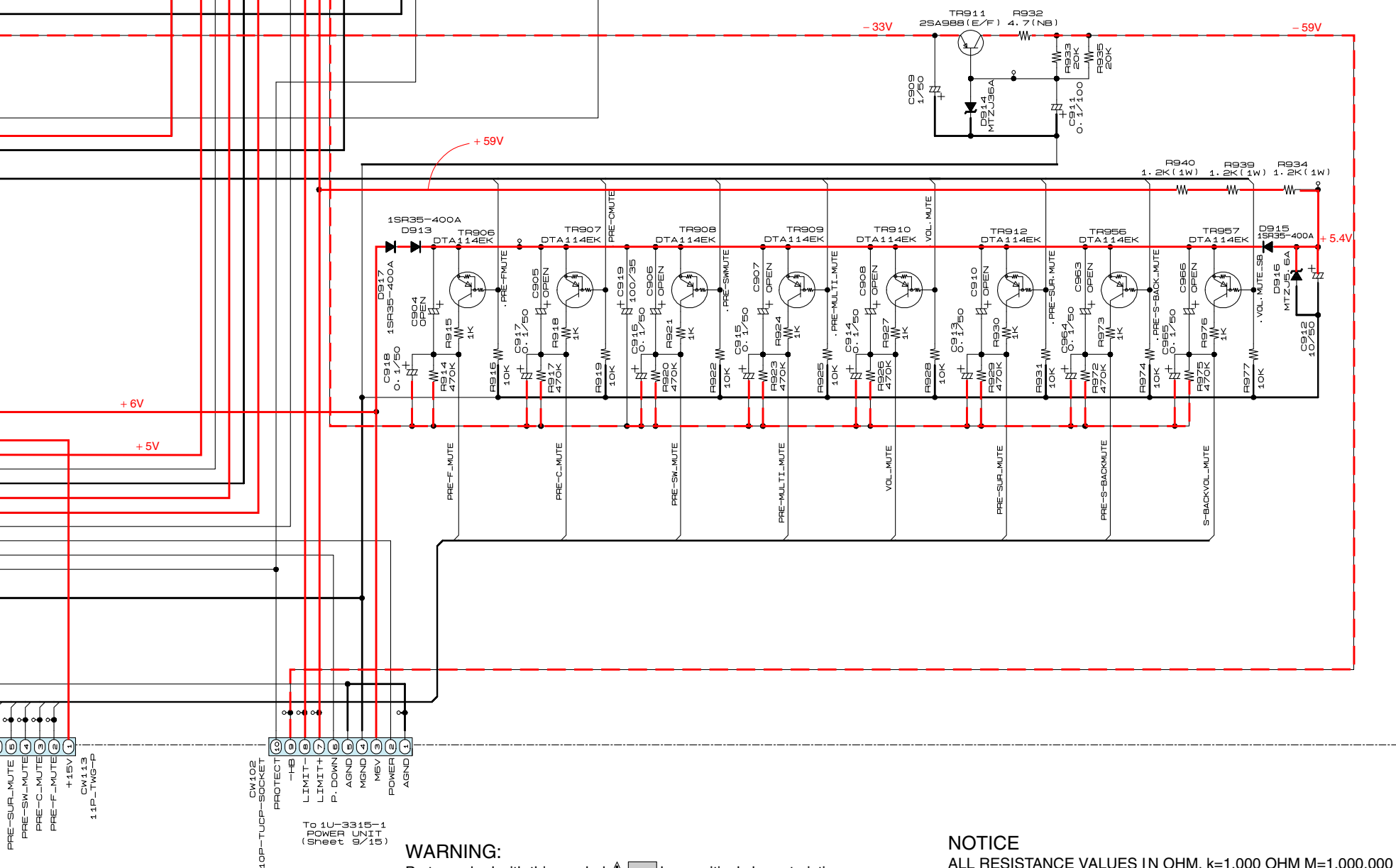
To 1U-3317-1  
CONTROL UNIT  
(Sheet 14/15)

To 1U-3318-1  
AMP CONNECT UNIT  
(Sheet 7/15)

To 1U-3318-1  
AMP CONNECT UNIT  
(Sheet 7/15)

To 1U-  
AMP CONNE  
(Sheet

	*1 C117, 118	*2 CX037
* USA CANADA	4. 7/50	3P-KR
EUROPE	47/16	OPEN
ASIA	4. 7/50	OPEN



**WARNING:**

Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**

DO NOT return the unit to the customer until the problem is located and corrected.

**NOTICE**

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

**SCHEMATIC DIAGRAMS (6/15)**  
 1U-3317-2 CONNECT UNIT  
 1U-3317-3 FRONT UNIT

E  
F  
G  
H

SCHEMATIC DIAGRAMS (7/15)

1 2 3 4 5 6 7 8 9 10 11

A

B

C

D

E

F

G

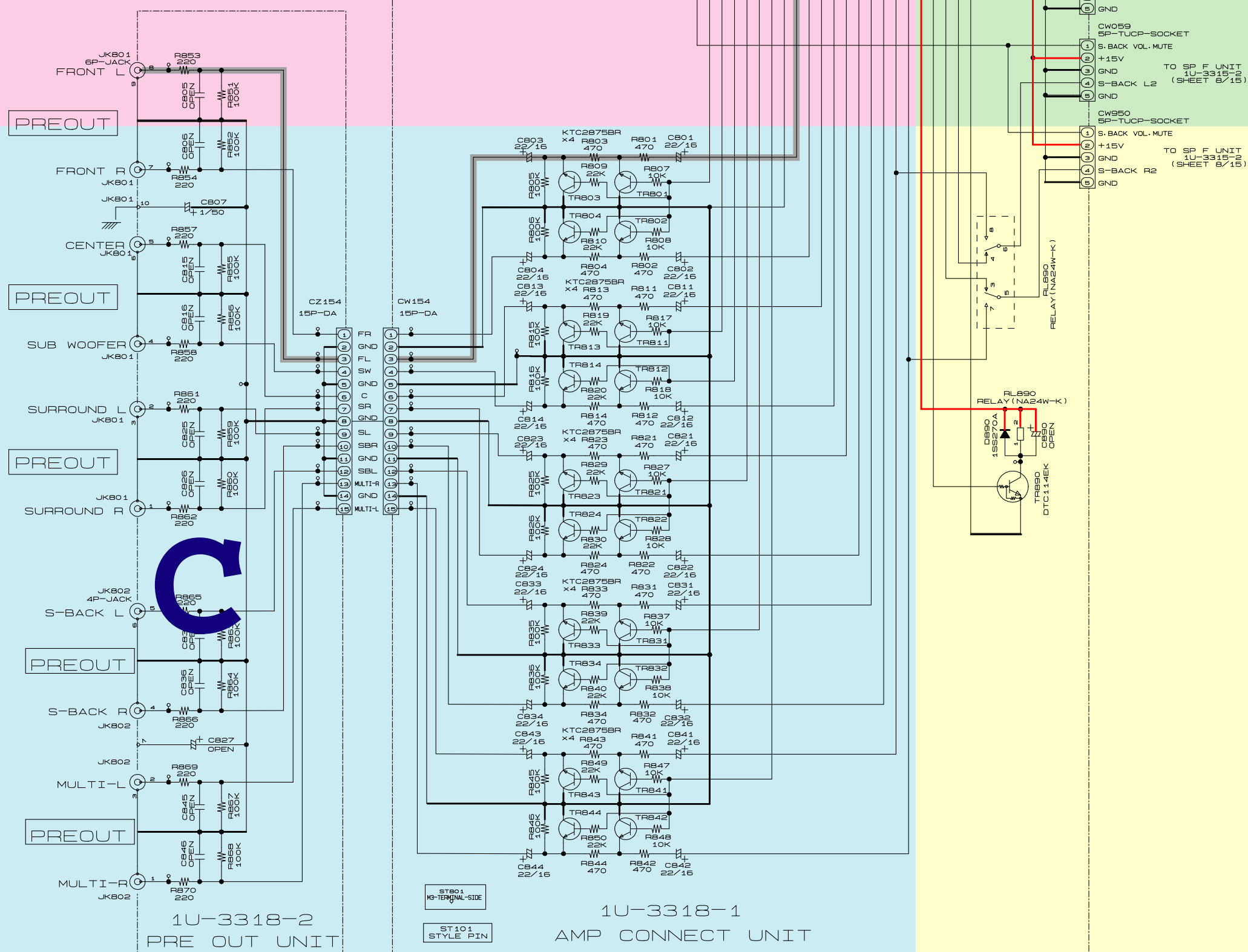
H

A

B

C

D



— + B LINE  
 — SIGNAL

**NOTICE**  
 ALL RESISTANCE VALUES IN OHM, K=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN PICO-FARAD, P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT VALUE MEASURED AT NO SIGNAL INPUT  
 CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
 NOTICE.

**WARNING:**  
 Parts marked with this symbol  $\Delta$  have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**  
 Before returning the unit to the customer, make sure you make either (1) a  
 leakage current check or (2) a line to chassis resistance check. If the leakage  
 current exceeds 0.5 milliamperes, or if the resistance from chassis to either side  
 of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
 DO NOT return the unit to the customer until the problem is located and  
 corrected.

SCHEMATIC DIAGRAMS (7/15)  
 1U-3318-1 AMP CONNECT UNIT  
 1U-3318-2 PRE OUT UNIT

# SCHEMATIC DIAGRAMS (7/15)

1

2

3

4

5

6

A

B

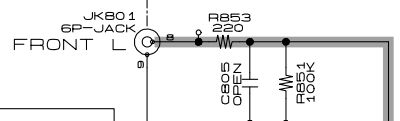
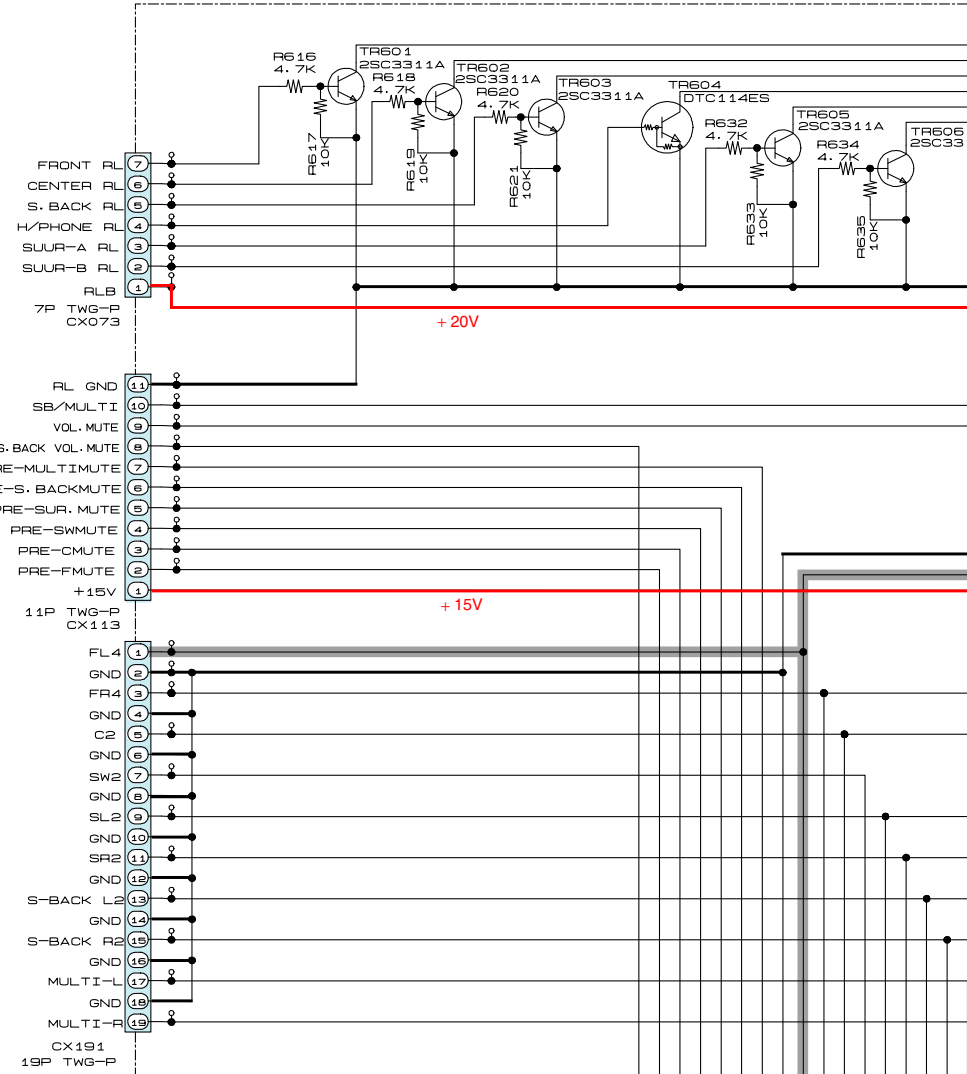
C

D

TO CONNECT UNIT  
1U-3317-2  
(SHEET 6/15)

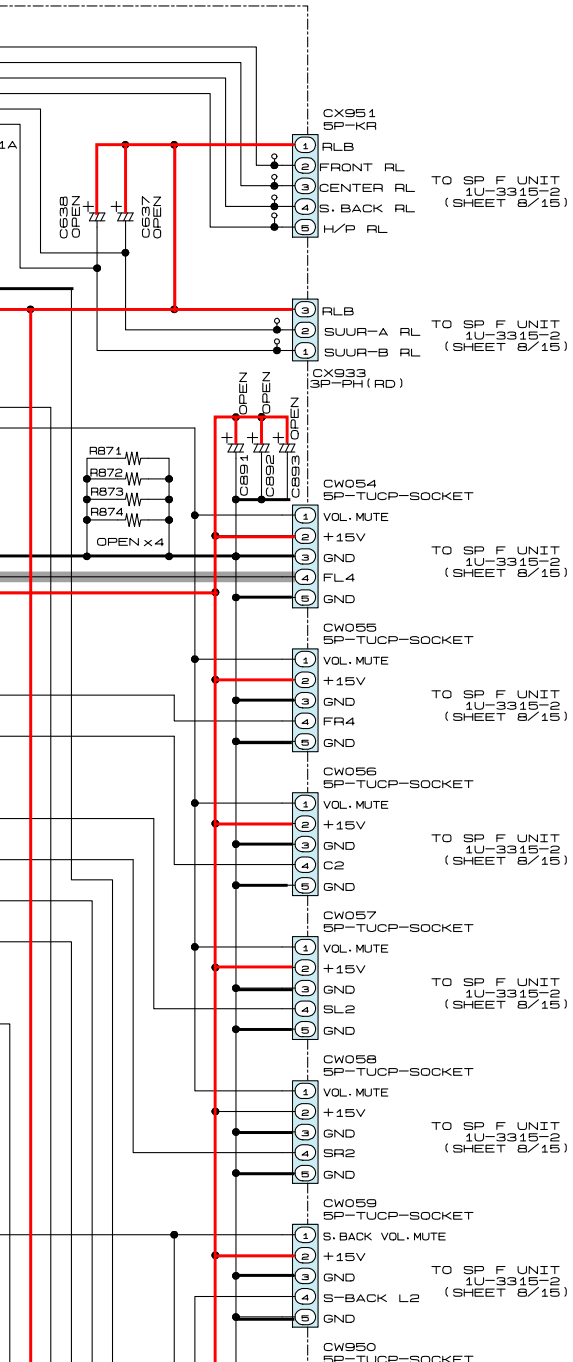
TO CONNECT UNIT  
1U-3317-3  
(SHEET 6/15)

TO CONNECT UNIT  
1U-3317-E  
(SHEET 6/15)



FRONT L



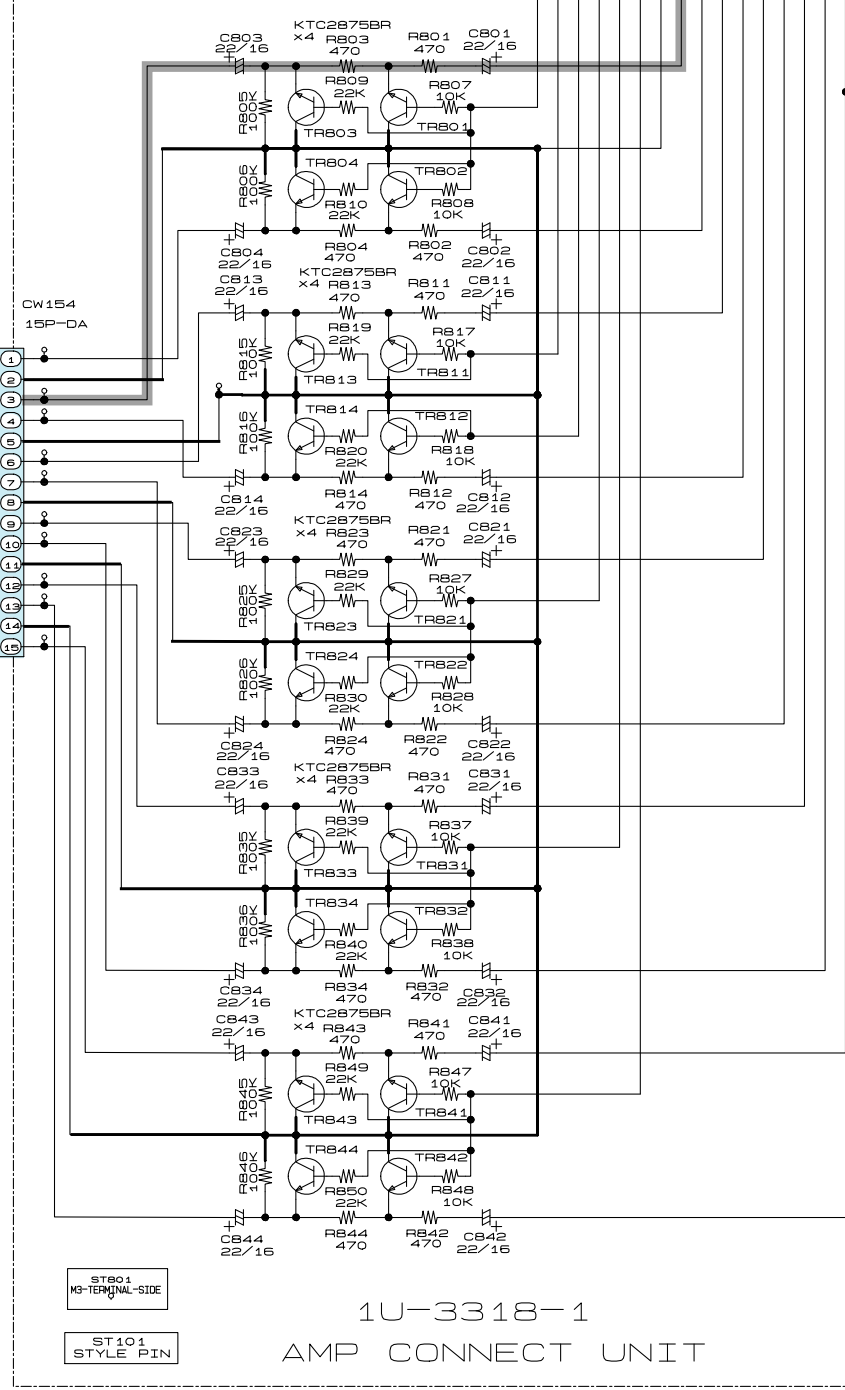
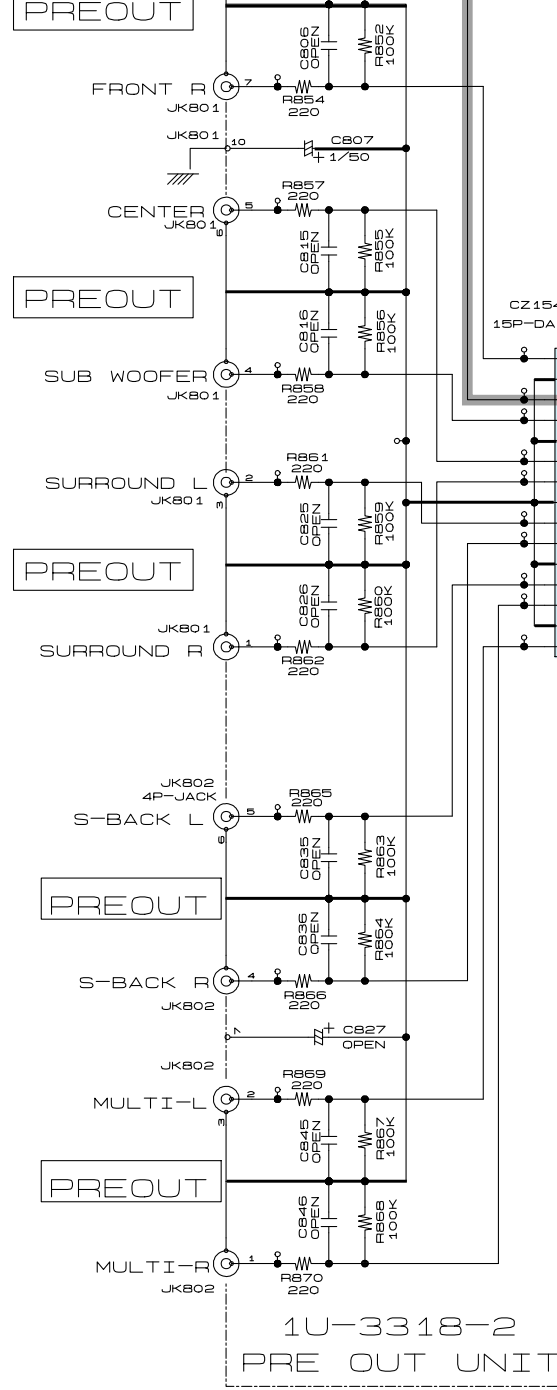


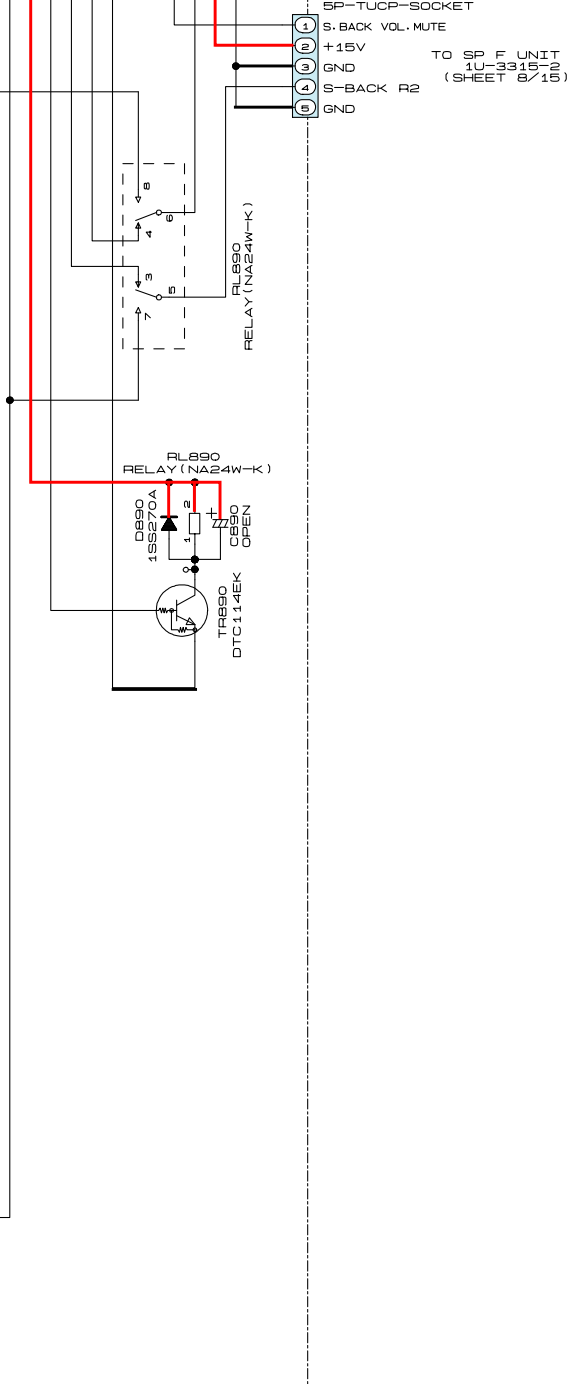
E

F

G

H






#### NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
 CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
 NOTICE.

#### WARNING:

Parts marked with this symbol  have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacture.

#### CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

#### WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

## SCHEMATIC DIAGRAMS (7/15)

1U-3318-1 AMP CONNECT UNIT

1U 3318-2 PRE OUT UNIT

SCHEMATIC DIAGRAMS (8/15)

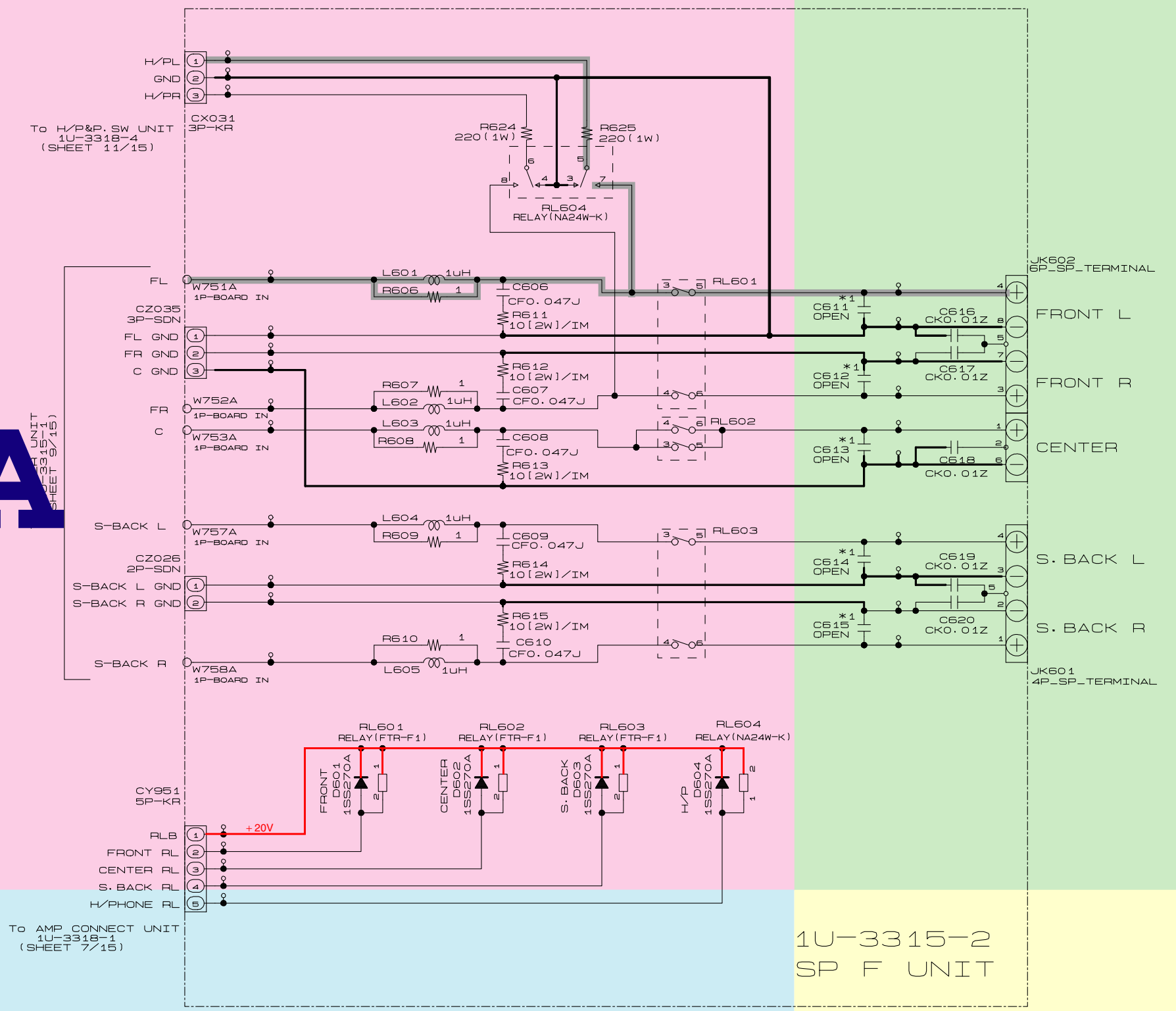
1 2 3 4 5 6 7 8 9 10 11

**A**

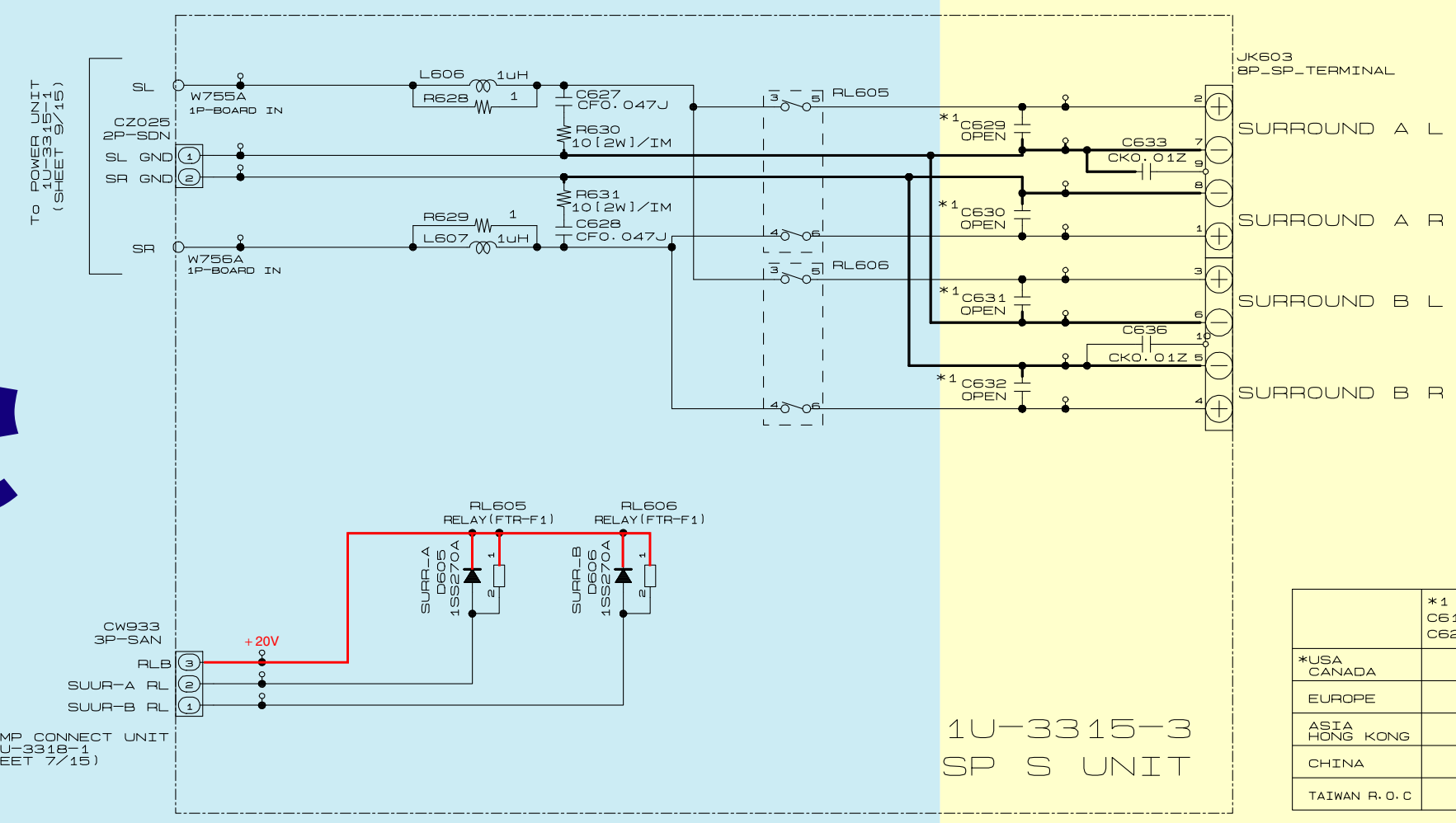
**B**

**C**

**D**



1U-3315-2  
SP F UNIT



1U-3315-3  
SP S UNIT

— + B LINE  
— SIGNAL

	*1 C611, 612, 613, 614, 615 C629, 630, 631, 632
*USA CANADA	OPEN
EUROPE	C00.01
ASIA HONG KONG	OPEN
CHINA	OPEN
TAIWAN R.O.C	C00.01

**NOTICE**  
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

**WARNING:**  
Parts marked with this symbol have critical characteristics.  
Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a  
leakage current check or (2) a line to chassis resistance check. If the leakage  
current exceeds 0.5 milliamps, or if the resistance from chassis to either side  
of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and  
corrected.

# SCHEMATIC DIAGRAMS (8/15)

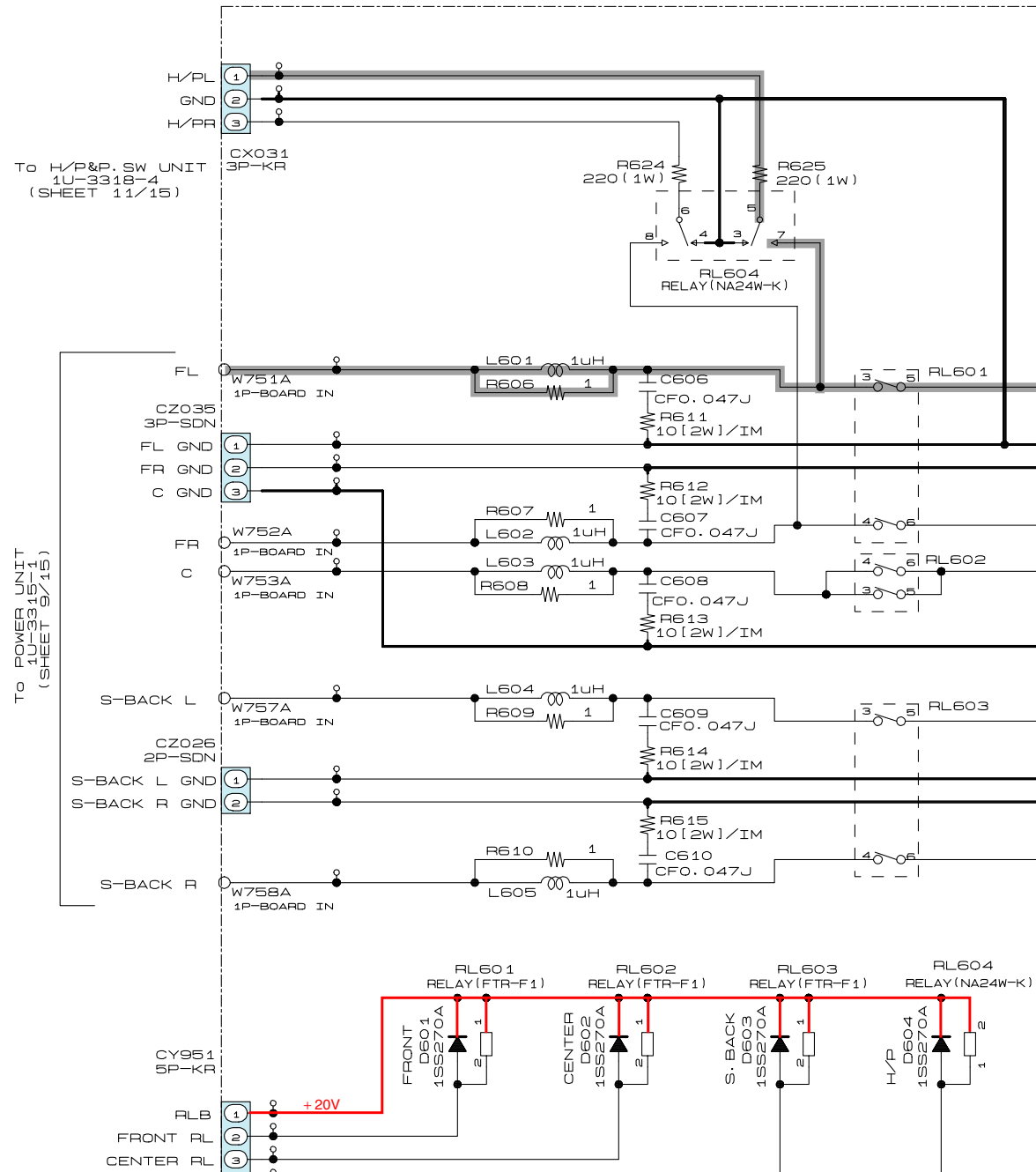
1

2

3

4

5



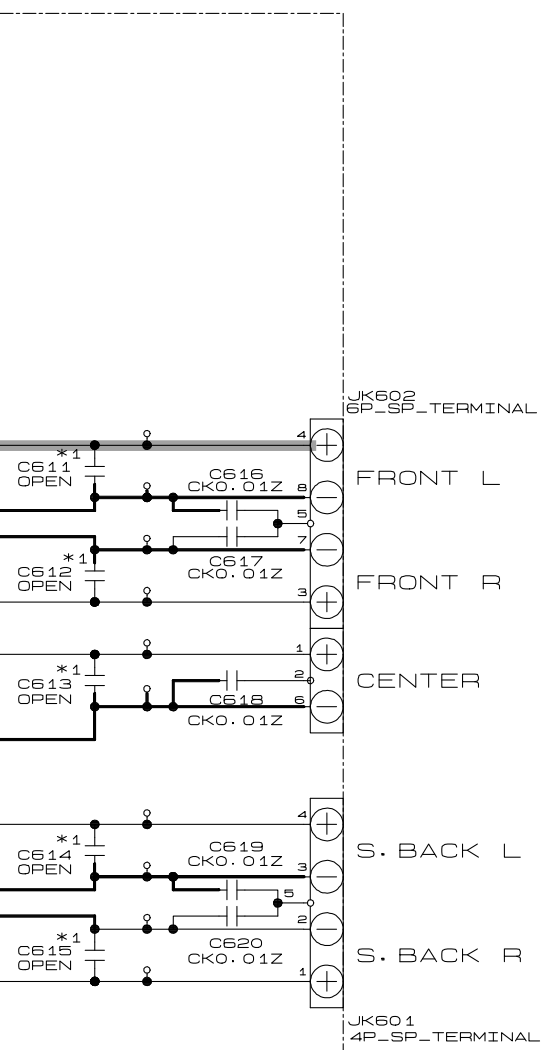
6 7 8 9 10 11

A

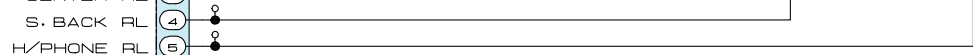
B

C

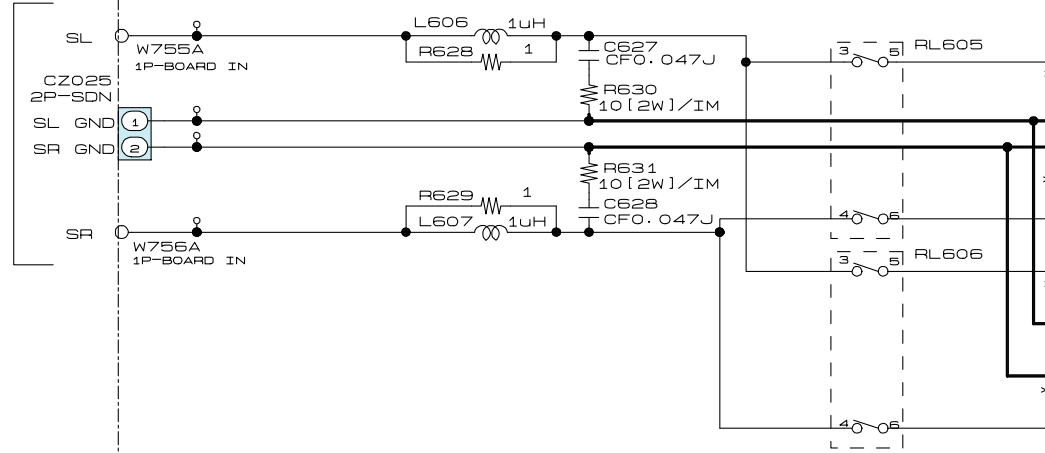
D



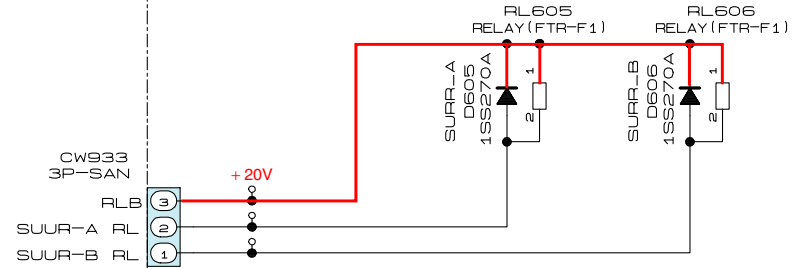
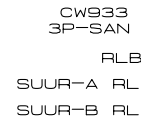
To AMP CONNECT UNIT  
1U-3318-1  
(SHEET 7/15)



To POWER UNIT  
(SHEET 9/15)

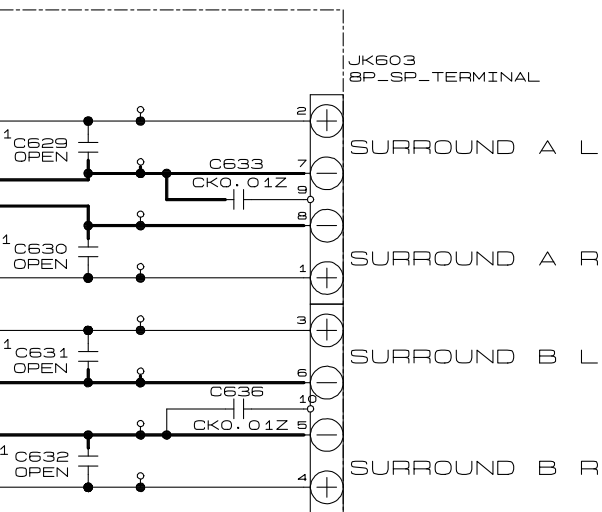


To AMP CONNECT UNIT  
1U-3318-1  
(SHEET 7/15)





1U-3315-2  
SP F UNIT



1U-3315-3  
SP S UNIT

	*1 C611, 612, 613, 614, 615 C629, 630, 631, 632
*USA CANADA	OPEN
EUROPE	CQO .01
ASIA HONG KONG	OPEN
CHINA	OPEN
TAIWAN R. O. C	CQO .01

— + B LINE  
— SIGNAL

**NOTICE**

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

**WARNING:**

Parts marked with this symbol have critical characteristics.  
Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**

Before returning the unit to the customer, make sure you make either (1) a  
leakage current check or (2) a line to chassis resistance check. If the leakage  
current exceeds 0.5 milliamps, or if the resistance from chassis to either side  
of the power card is less than 460 kohms, the unit is defective.

**WARNING:**

DO NOT return the unit to the customer until the problem is located and  
corrected.

**SCHEMATIC DIAGRAMS (8/15)**

1U-3315-2 SP F UNIT  
1U-3315-3 SP S UNIT

E

F

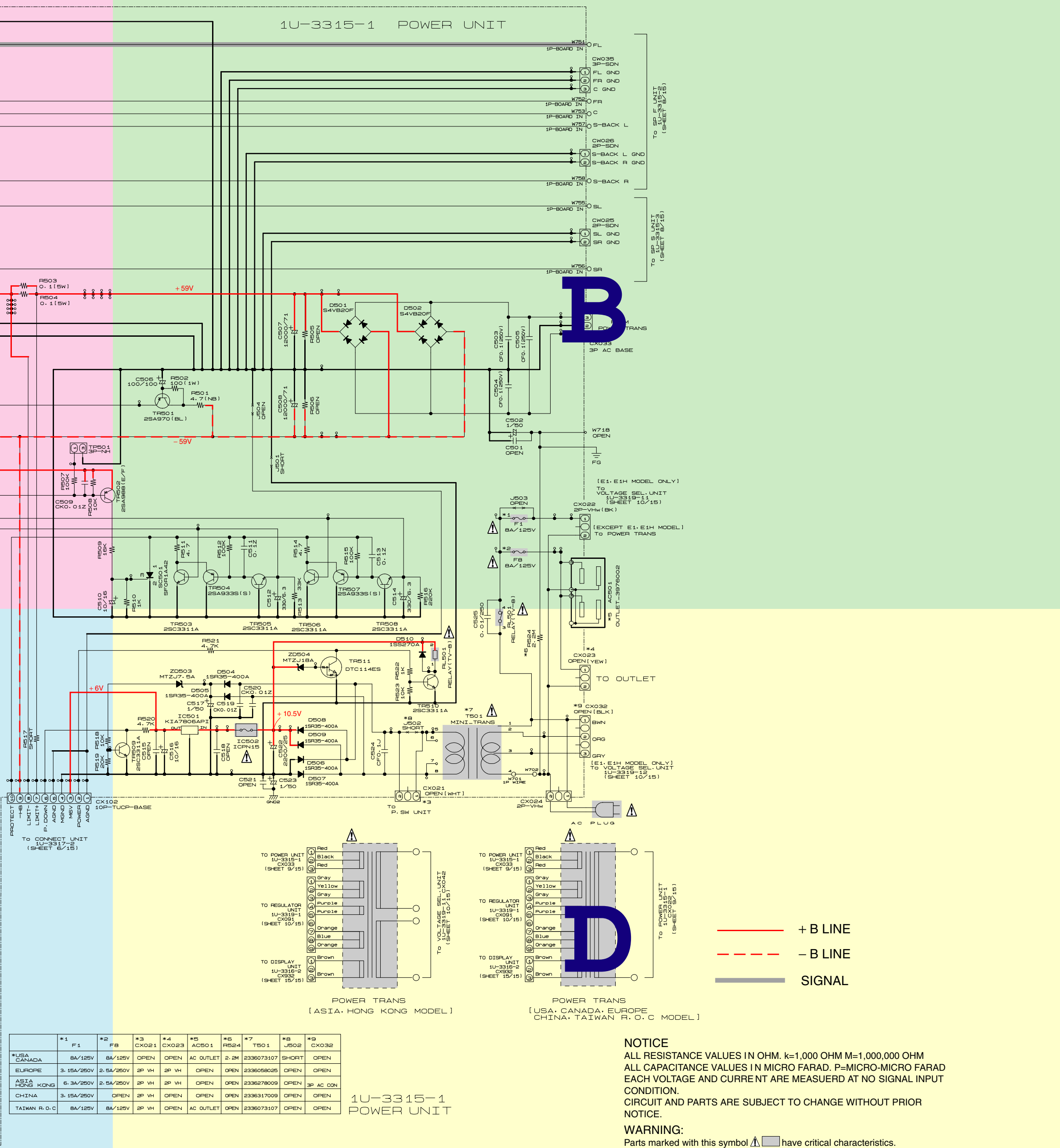
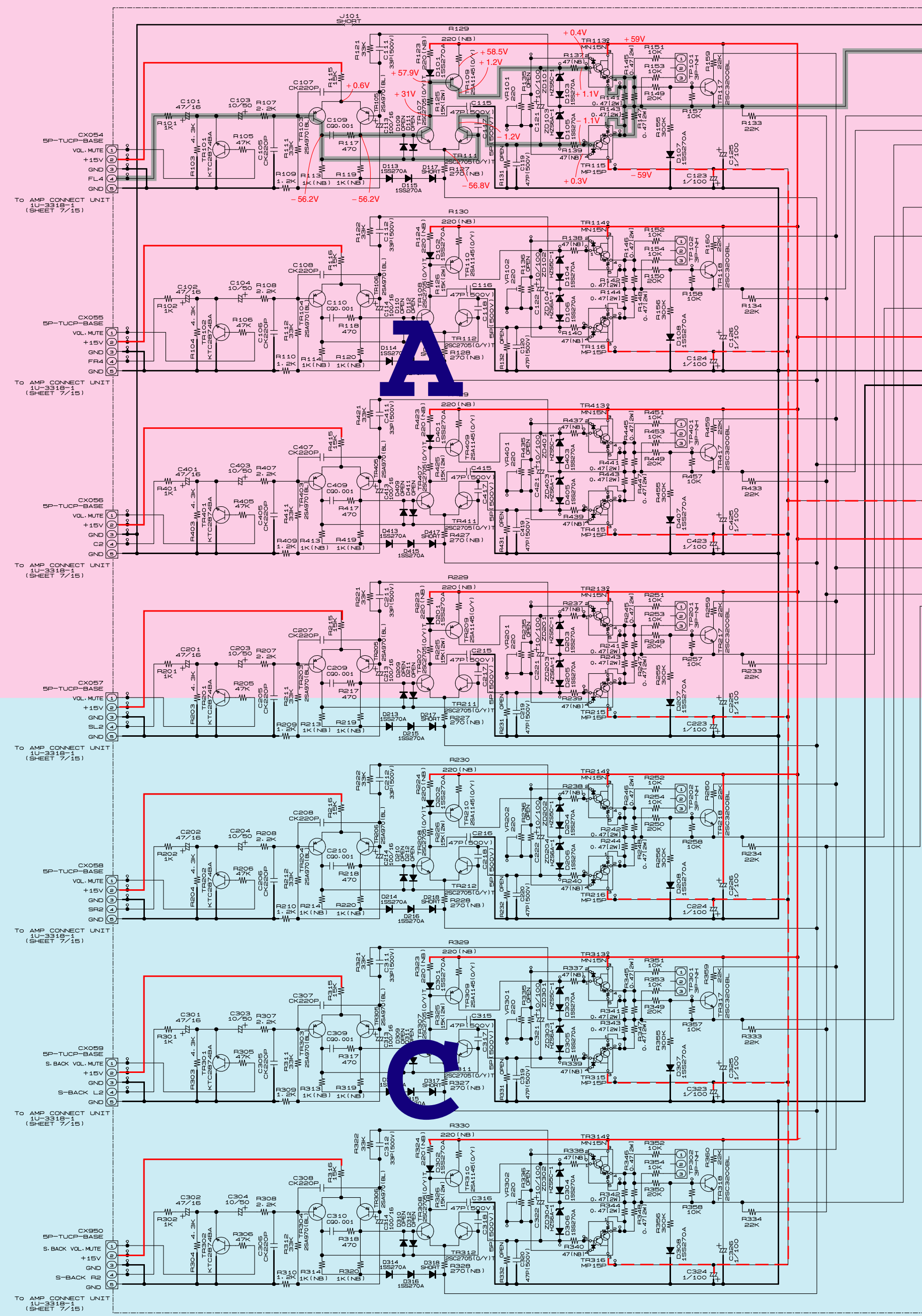
G

H

SCHEMATIC DIAGRAMS (9/15)

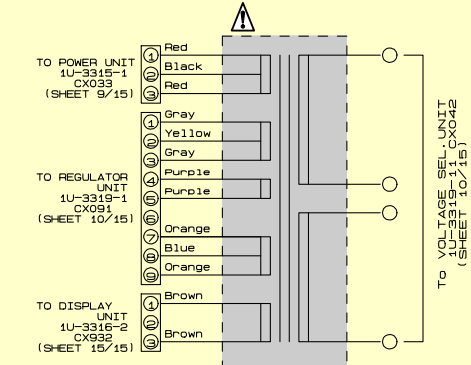
1 2 3 4 5 6 7 8 9 10 11

A B C D E F G H

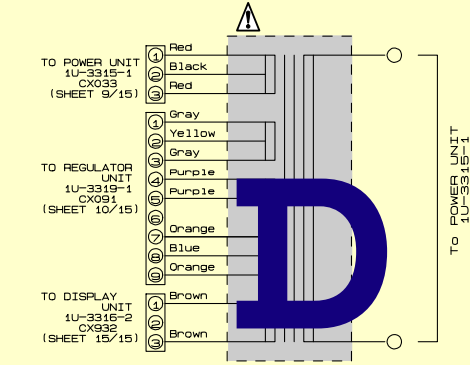


	*1	*2	*3	*4	*5	*6	*7	*8
*USA	F1	FB	CX021	CX023	AC501	FB504	T501	FB502
CANADA	8A/125V	8A/125V	OPEN	OPEN	AC OUTLET	2.2M	2386073107	SHORT
EUROPE	3.15A/250V	2.5A/250V	2P VH	2P VH	OPEN	OPEN	2386058026	OPEN
ASIA	6.3A/250V	2.5A/250V	2P VH	2P VH	OPEN	OPEN	2386278009	OPEN
HONG KONG	3.15A/250V	2.5A/250V	2P VH	2P VH	OPEN	OPEN	2386317009	OPEN
CHINA	3.15A/250V	2.5A/250V	2P VH	2P VH	OPEN	OPEN	2386317009	OPEN
TAIWAN R.O.C.	8A/125V	8A/125V	2P VH	2P VH	OPEN	AC OUTLET	OPEN	OPEN

1U-3315-1 POWER UNIT



POWER TRANS (ASIA·HONG KONG MODEL)



POWER TRANS [USA·CANADA·EUROPE CHINA·TAIWAN R.O.C MODEL]

— + B LINE  
 - - - - - B LINE  
 ——— SIGNAL

**NOTICE**  
 ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

**WARNING:**  
 Parts marked with this symbol have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**  
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
 DO NOT return the unit to the customer until the problem is located and corrected.





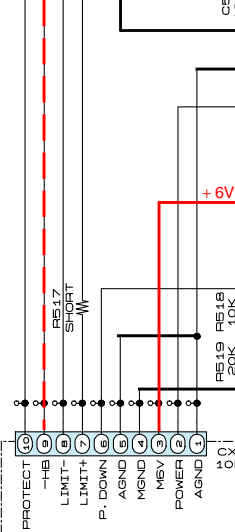
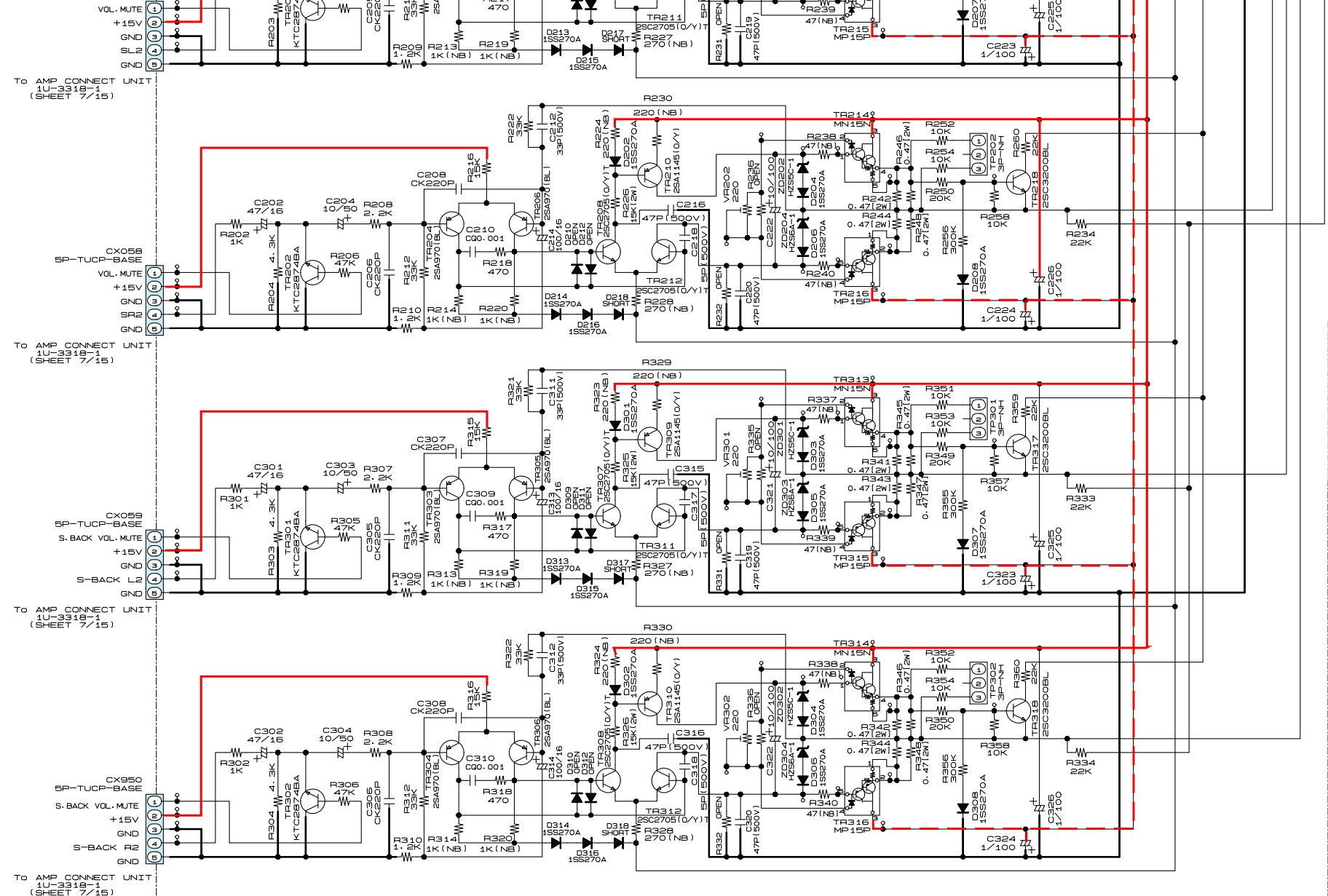


E

F

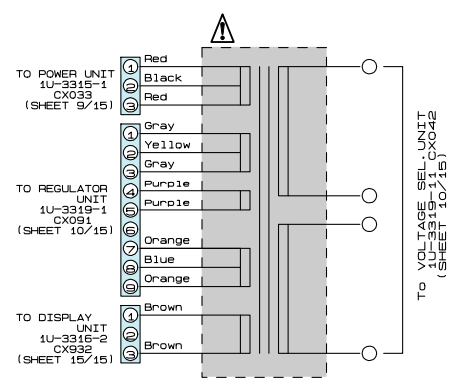
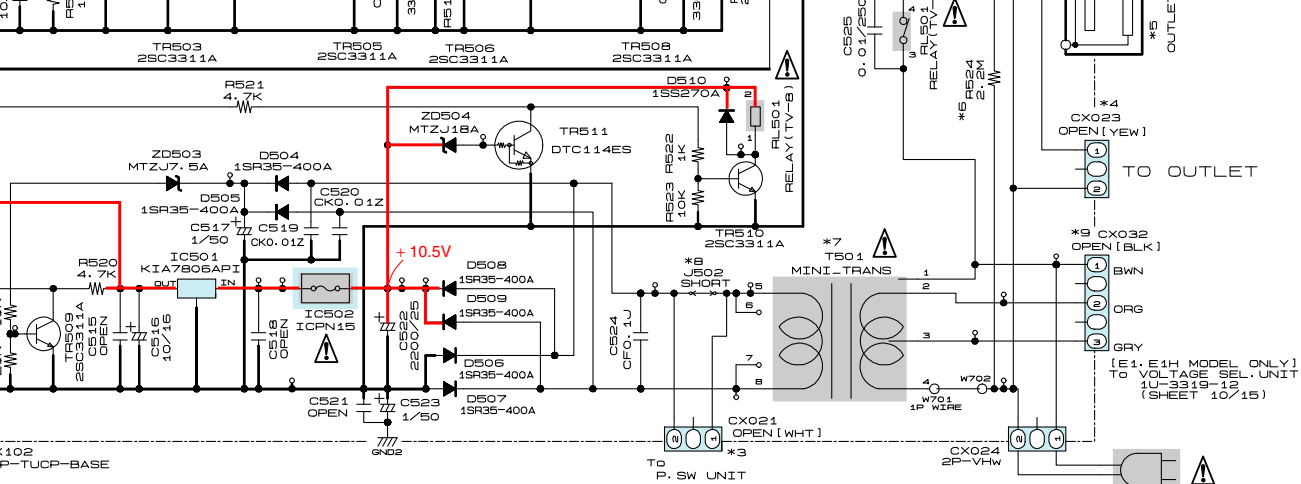
G

H

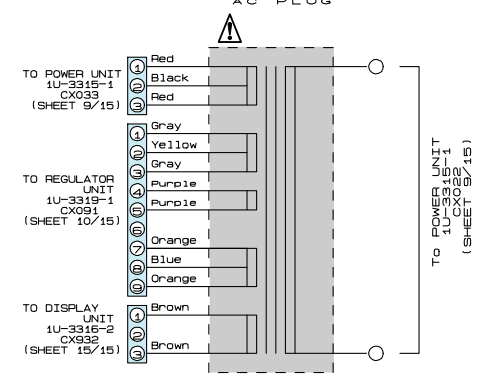


TO AMP CONNECT UNIT  
1U-3318-1  
(SHEET 6/15)

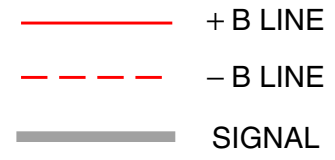
	*1	F 1	*
*USA CANADA		8A/125V	
EUROPE		3.15A/250V	2
ASIA HONG KONG		6.3A/250V	2
CHINA		3.15A/250V	
TAIWAN R. O. C		8A/125V	



POWER TRANS  
[ASIA, HONG KONG MODEL]



POWER TRANS  
[USA, CANADA, EUROPE  
CHINA, TAIWAN R. O. C. MODEL]



2 F8	*3 CX021	*4 CX023	*5 AC501	*6 R524	*7 T501	*8 J502	*9 CX032
8A/125V	OPEN	OPEN	AC OUTLET	2.2M	2336073107	SHORT	OPEN
5A/250V	2P VH	2P VH	OPEN	OPEN	2336058025	OPEN	OPEN
5A/250V	2P VH	2P VH	OPEN	OPEN	2336278009	OPEN	3P AC CON
OPEN	2P VH	OPEN	OPEN	OPEN	2336317009	OPEN	OPEN
8A/125V	2P VH	OPEN	AC OUTLET	OPEN	2336073107	OPEN	OPEN

1U-3315-1  
POWER UNIT

## SCHEMATIC DIAGRAMS (9/15) 1U-3315-1 POWER UNIT

### NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

### WARNING:

Parts marked with this symbol have critical characteristics.  
Use ONLY replacement parts recommended by the manufacture.

### CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

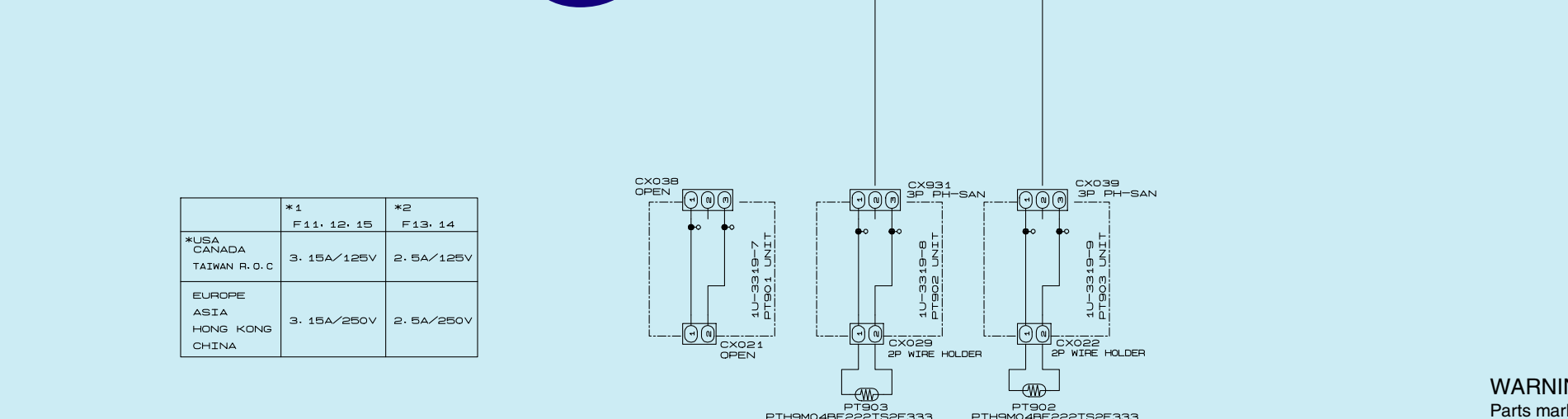
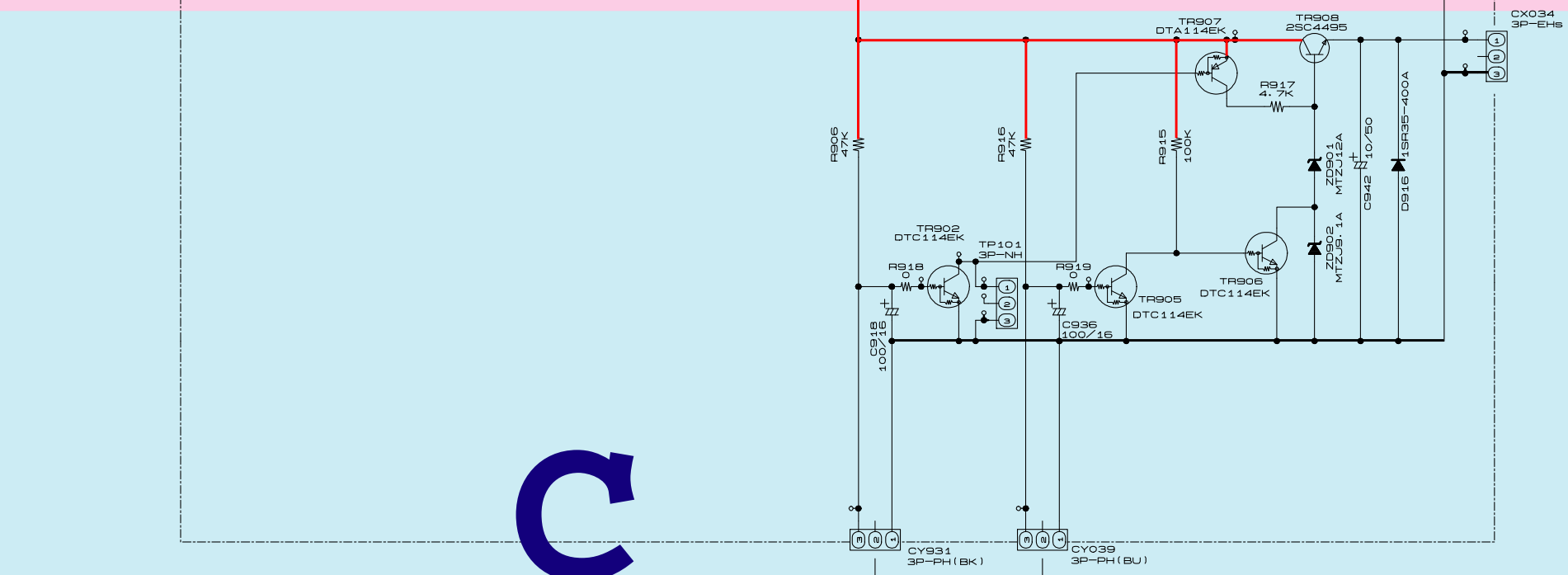
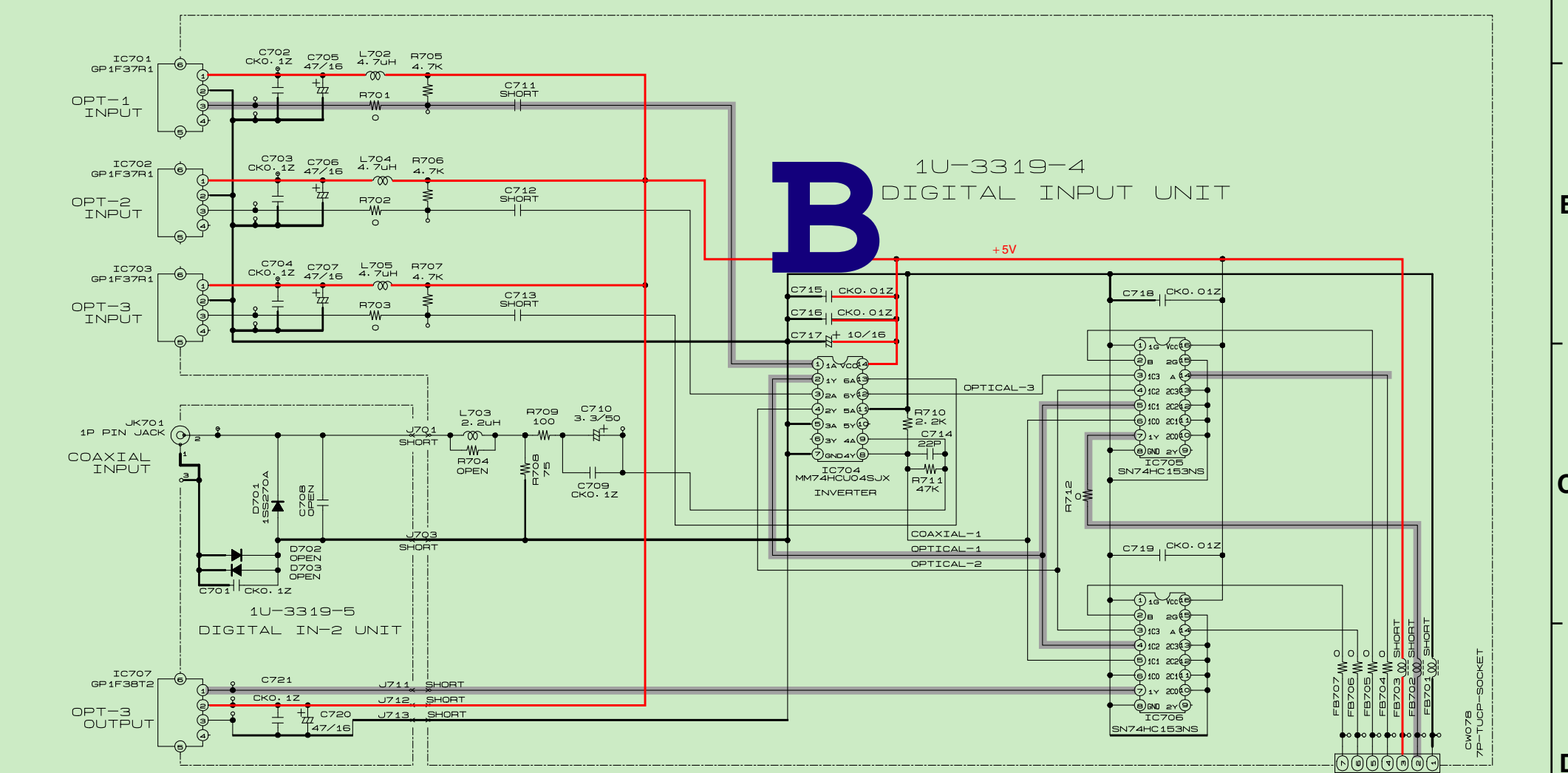
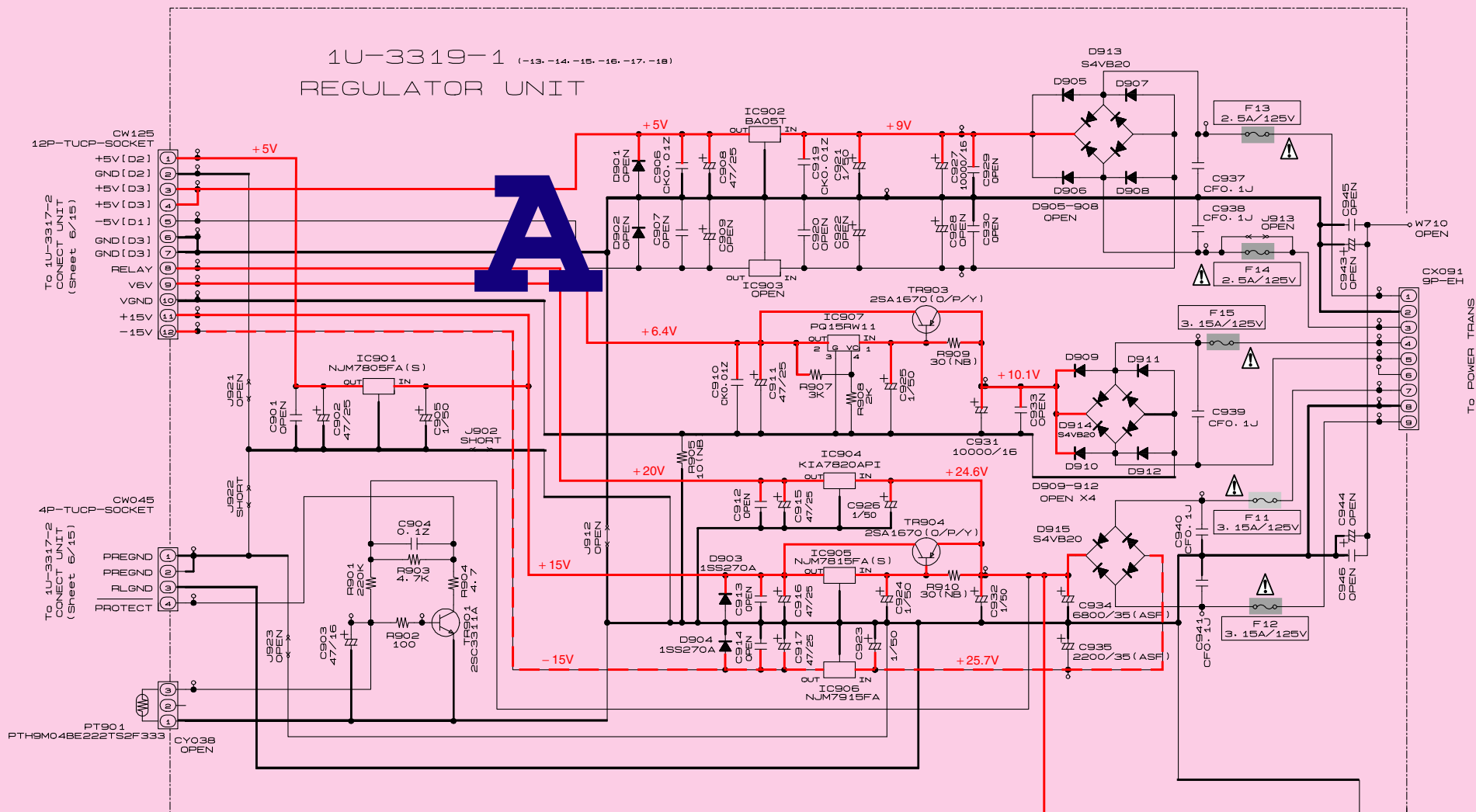
### WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

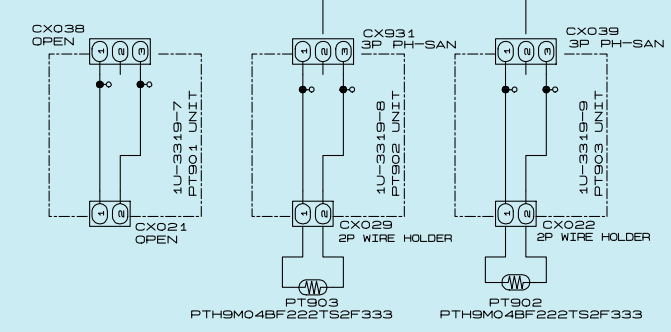


SCHMATIC DIAGRAMS (10/15)

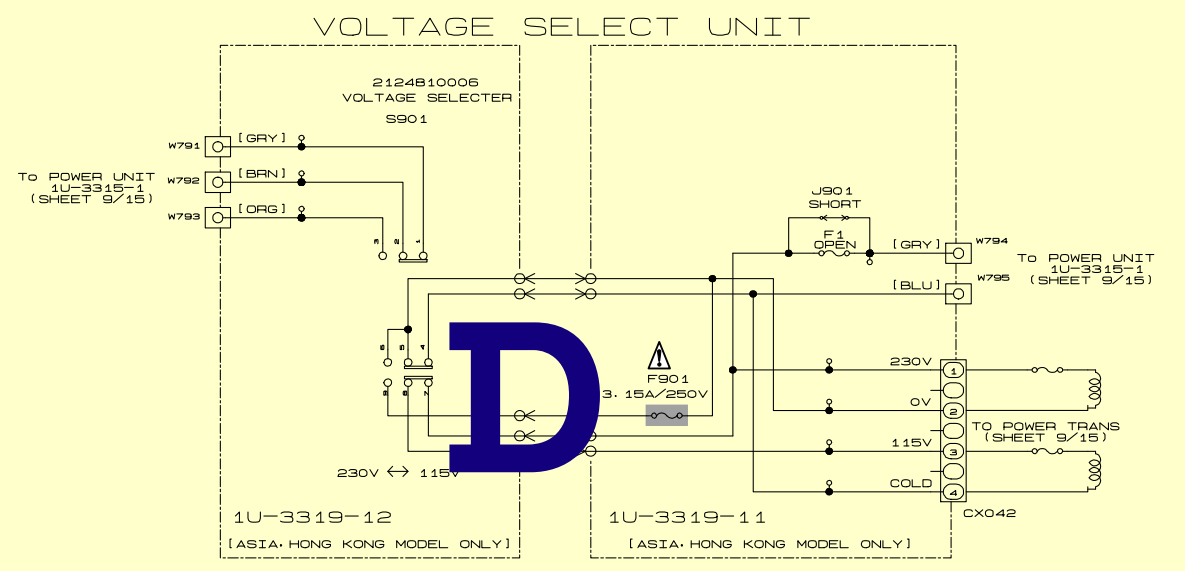
1 2 3 4 5 6 7 8 9 10 11



	*1	*2
USA CANADA TAIWAN R.O.C.	F11, 12, 15	F13, 14
EUROPE ASIA HONG KONG CHINA	3, 15A/125V	2, 5A/250V



	FB701~703	FB704~707
USA CANADA	SHORT	0
EUROPE ASIA TAIWAN R.O.C.	BEADS	EMIFIL (11A121)



— + B LINE  
- - - - - B LINE  
— SIGNAL

**WARNING:**  
Parts marked with this symbol have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamperes, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and corrected.

**SCHMATIC DIAGRAMS (10/15)**  
 1U-3319-1 REGULATOR UNIT  
 1U-3319-4,5 DIGITAL INPUT UNIT  
 1U-3319-11/1U3319-12 VOLTAGE SELECT UNIT  
 1U-3319-8 PT902 UNIT  
 1U-3319-9 PT903 UNIT

# SCHEMATIC DIAGRAMS (10/15)

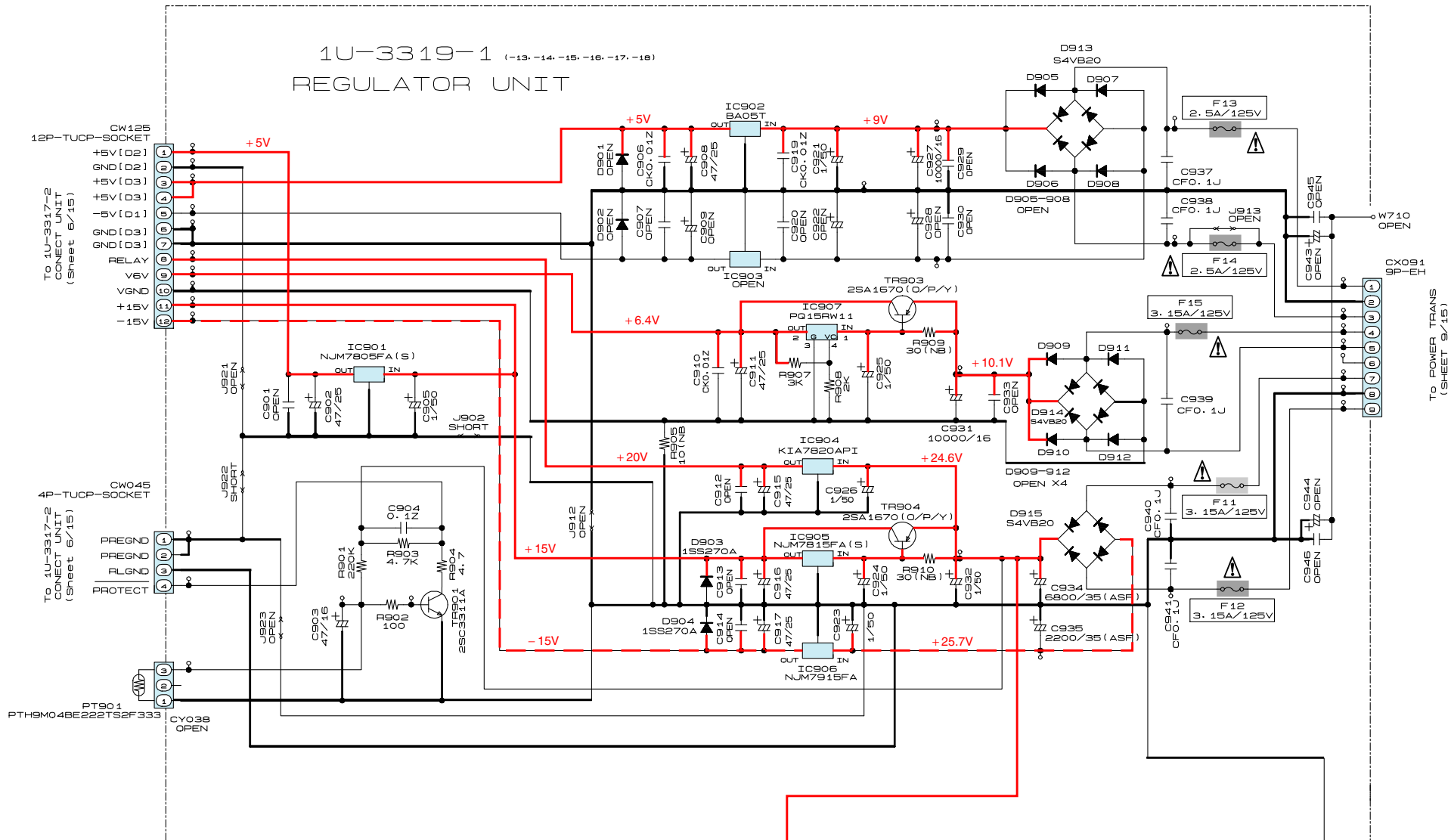
1

2

3

4

5



6

7

8

9

10

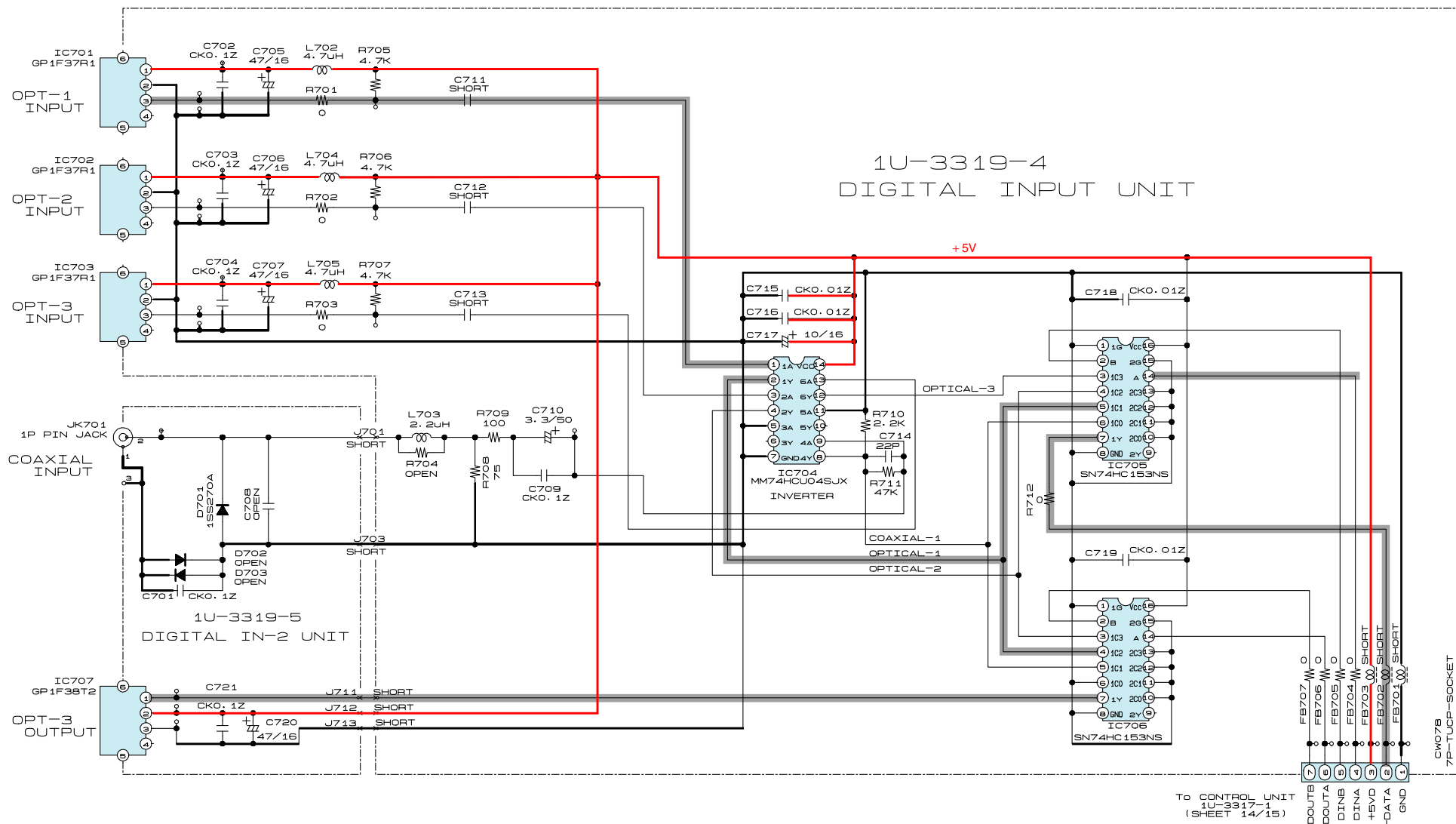
11

A

B

C

D

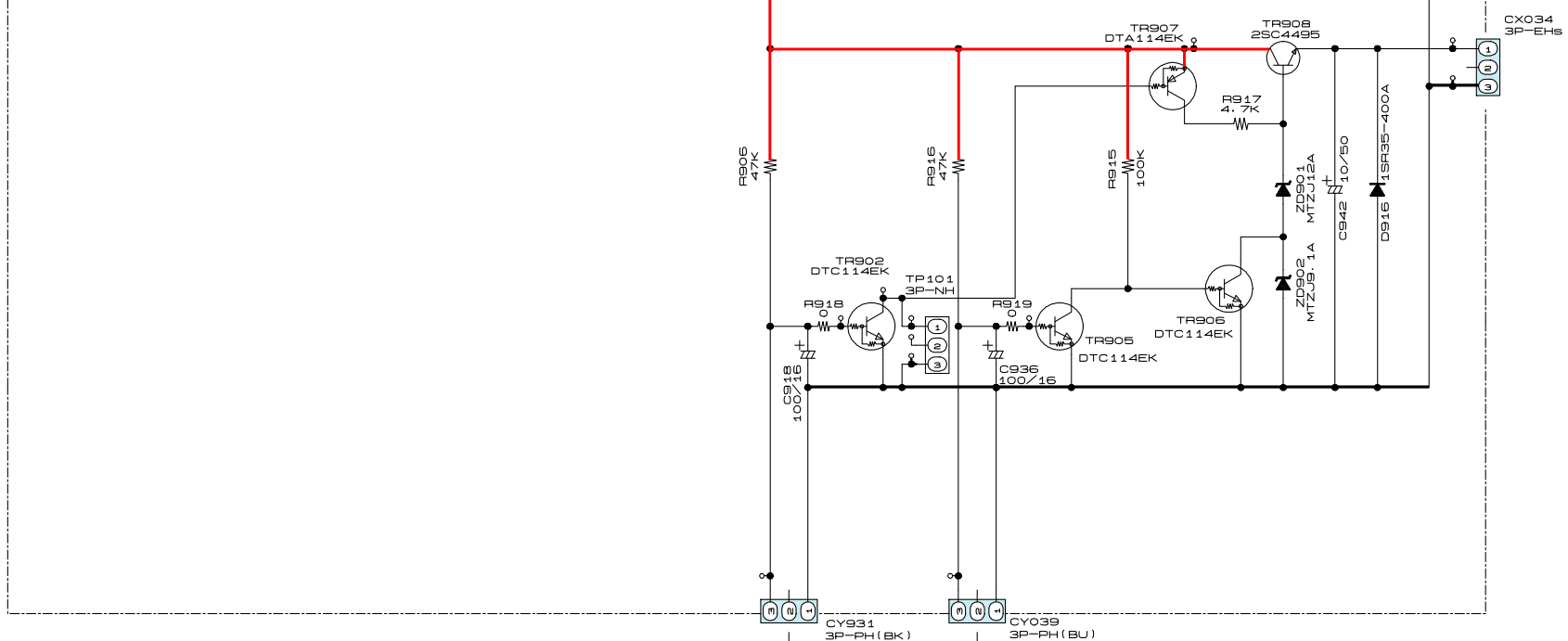


To CONTROL UNIT  
1U-3317-1  
(SHEET 14/15)

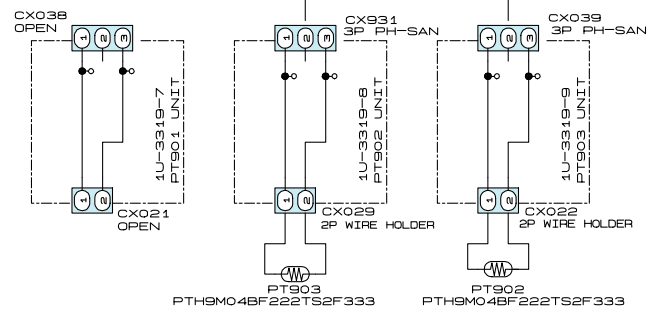
FB707 W/O  
FB706 W/O  
FB705 W/O  
FB704 W/O  
FB703 W/O SHORT  
FB702 W/O SHORT  
FB701 W/O SHORT

CW078  
7P-TUCP-SOCKET

DOUTB  
DOUTA  
DINB  
DINA  
+5V  
-DATA  
GND



	*1	*2
*USA CANADA TAIWAN R. O. C	F 11, 12, 15 3. 15A/125V	F 13, 14 2. 5A/125V
EUROPE ASIA HONG KONG CHINA	3. 15A/250V	2. 5A/250V

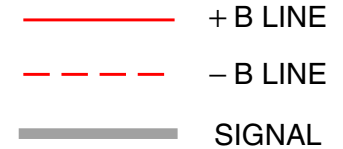
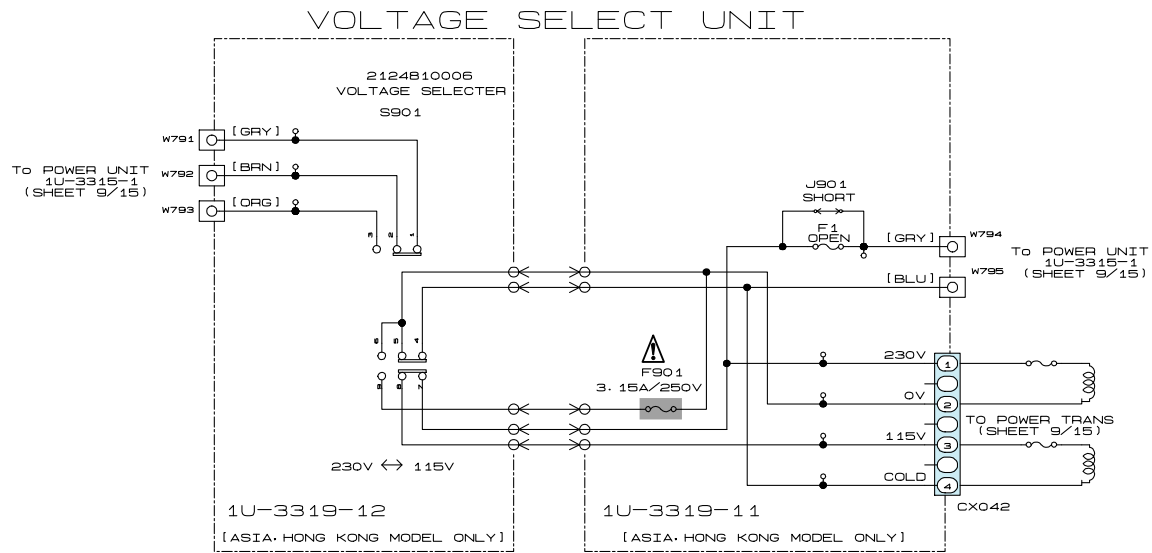


**NOTICE**

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
 CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
 NOTICE.

**WARNING**  
 Parts marked  
 Use ONLY re  
**CAUTION:**  
 Before returni  
 leakage curre  
 current excee  
 of the power c  
**WARNING**  
 DO NOT retur  
 corrected.

	FB701~703	FB704~707
USA CANADA	SHORT	0
EUROPE ASIA TAIWAN R.O.C	BEADS	EMIFIL (11A121)



with this symbol have critical characteristics. placement parts recommended by the manufacture.

ng the unit to the customer, make sure you make either (1) a nt check or (2) a line to chassis resistance check. If the leakage ds 0.5 milliamps, or if the resistance from chassis to either side card is less than 460 kohms, the unit is defective.

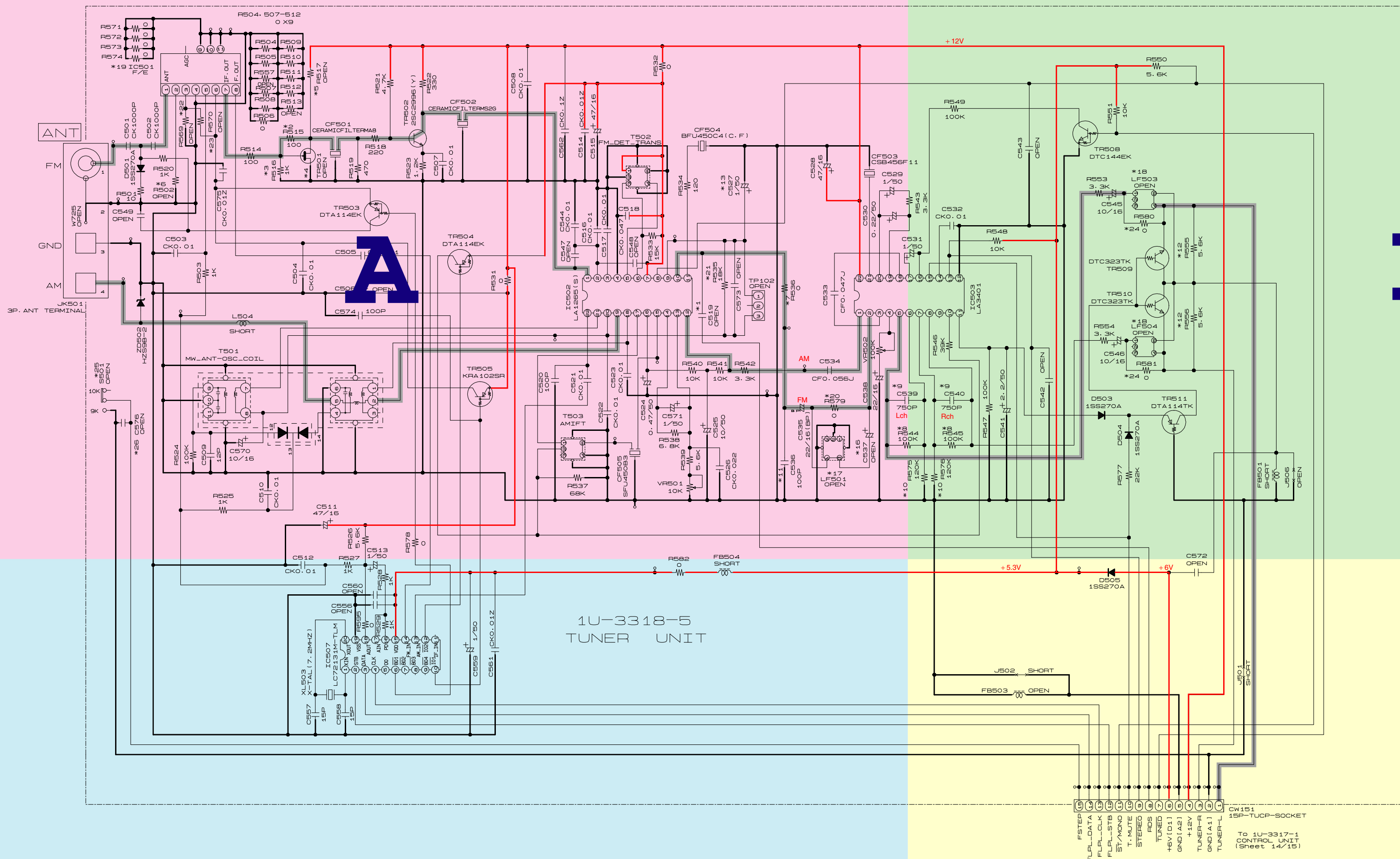
rn the unit to the customer until the problem is located and

- SCHEMATIC DIAGRAMS (10/15)**  
 1U-3319-1 REGULATOR UNIT  
 1U-3319-4,5 DIGITAL INPUT UNIT  
 1U-3319-11/1U3319-12 VOLTAGE SELECT UNIT  
 1U-3319-8 PT902 UNIT  
 1U-3319-9 PT903 UNIT

SCHMATIC DIAGRAMS (11/15)

1 2 3 4 5 6 7 8 9 10 11

A  
B  
C  
D  
E  
F  
G  
H

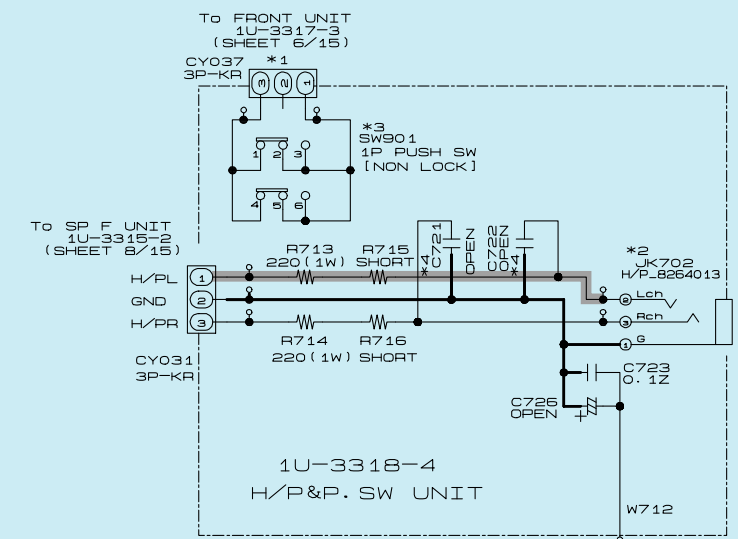


TUNER UNIT

* NO	* USA CANADA	ASIA HONG KONG	CHINA TAIWAN R. O. C	EUROPE
1	C519	---	---	CK100p
2	R515	100	---	---
3	R516	1K	---	330
4	TR501	---	---	2SK211 (GR)
5	R517	---	---	330
6	R502	---	---	0
7	R536	0	---	2.7K
8	R544, 545	100K	---	150K
9	C539, 540	750p	510p	330P
10	R575, 576	120K	---	200K
11	C536	100p	---	---
12	R555, 556	5.6K	---	3.3K
13	C527	1/50	0.33/50	0.33/50
14	CF502	SFE 10.7MS2G	---	FMCFSK107 M2-A
15	CF501	SFE 10.7MAB	---	FMCFSK107 M2-A
16	C537	---	---	22/16
17	LF501	---	---	ANTI-BLIP FILTER
18	LF503, 504	---	---	LFP 2320085004
19	IC501	F/E 215010200B	---	F/E 2159013004
20	R579	0	---	---
21	R535	18K	39K	39K
22	R569	---	---	5.6K
23	R570	---	---	10K
24	R580, 581	0	---	---
25	S501	---	SW	---
26	C576	---	CK1000P	---
27				
28				
29				
30				
31				
32				
33				
34				
35				

H/P & P. SW UNIT

* NO	* USA CANADA	ASIA HONG KONG	CHINA TAIWAN R. O. C	EUROPE
1	CY037	3P-KR	---	---
2	JK702	H/P JACK (NI)	---	H/P JACK (GOLD)
3	SW901	H/P PUSH SW	---	---
4	C721, 722	---	---	CG1000P
5				



C

D

**WARNING:**  
Parts marked with this symbol have critical characteristics. Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and corrected.

**NOTICE**  
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

SCHMATIC DIAGRAMS (11/15)  
1U-3318-5 TUNER UNIT  
1U-3318-4 H/P & P. SW UNIT



# SCHEMATIC DIAGRAMS (11/15)

1

2

3

4

5

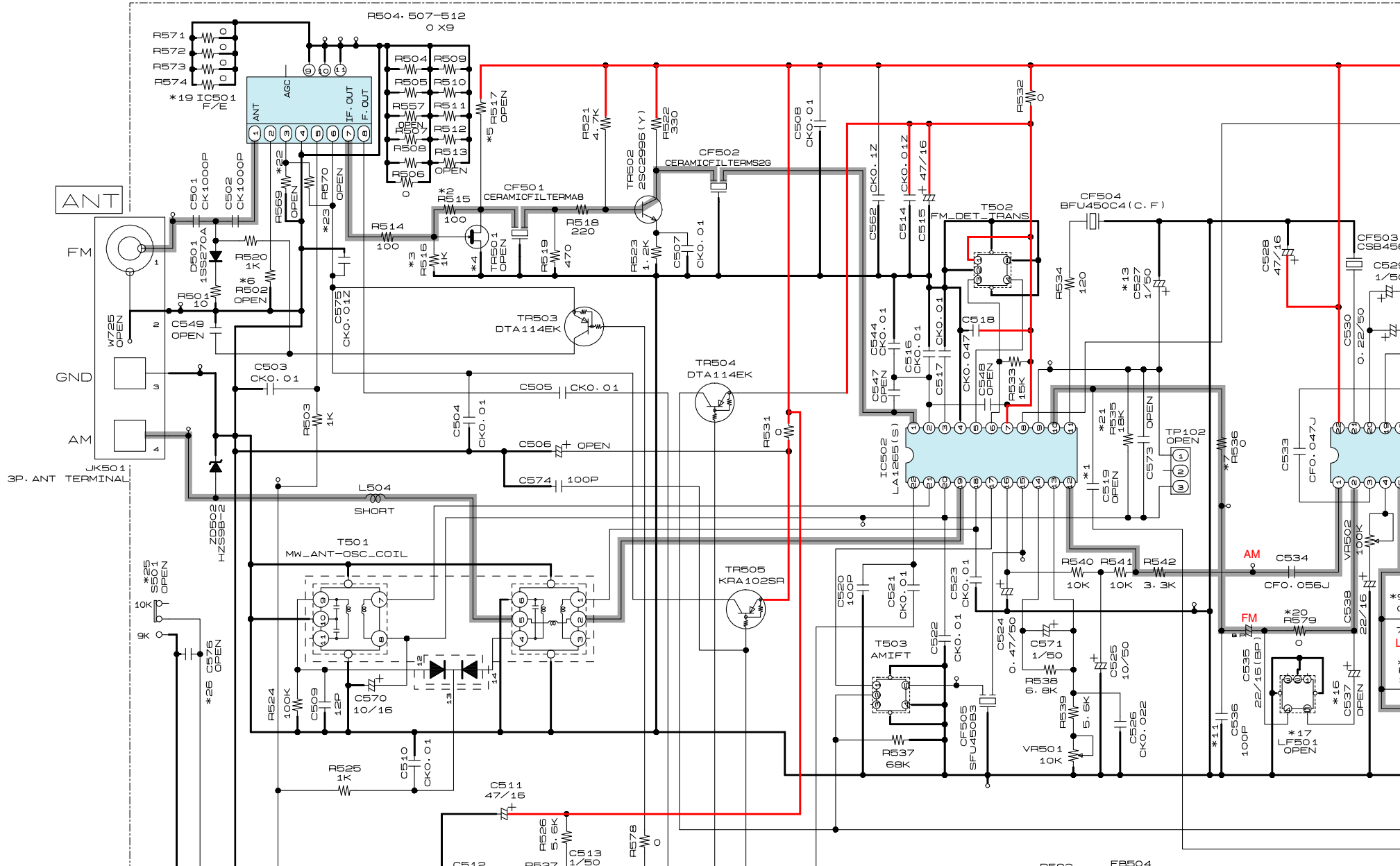
6

A

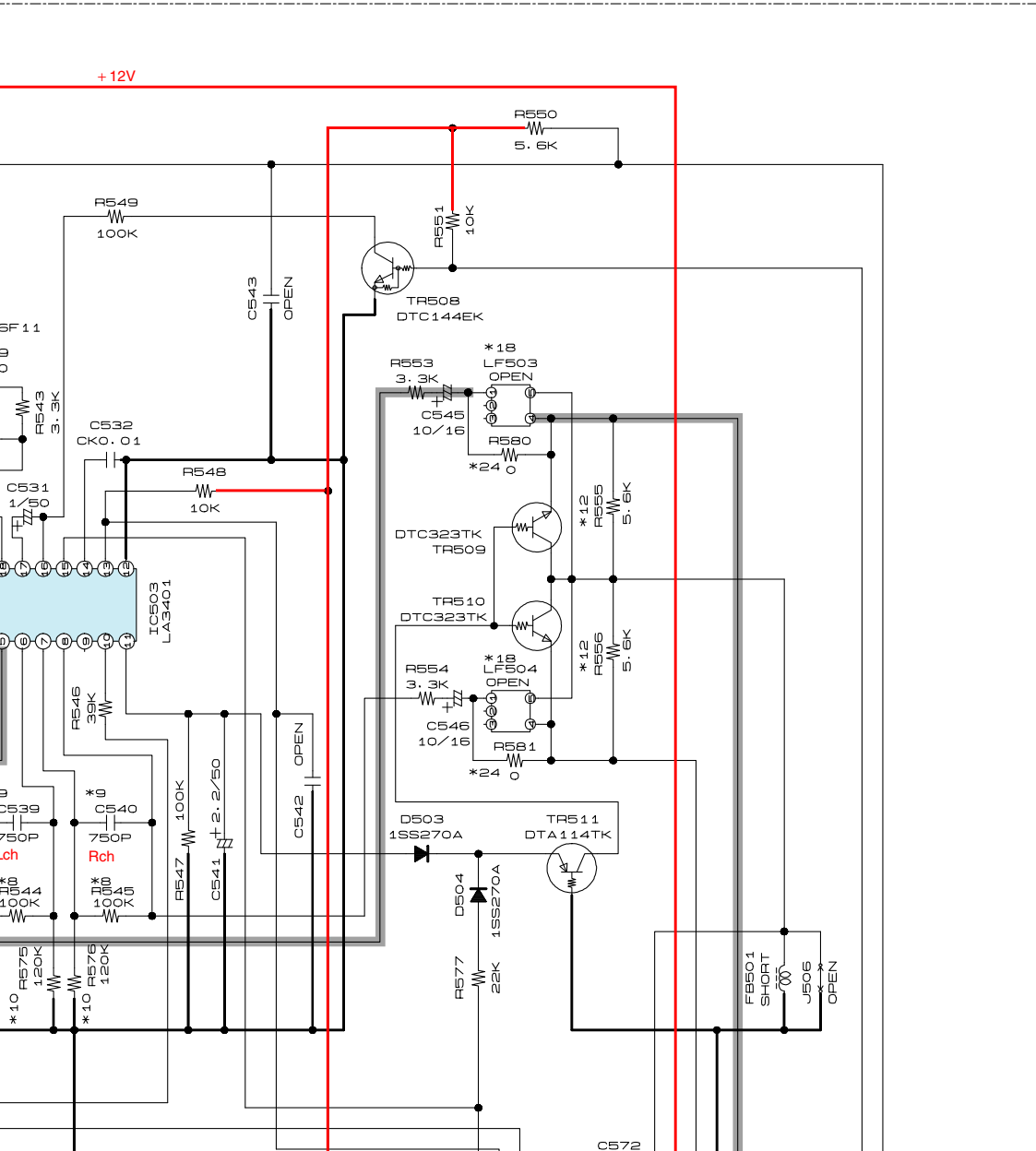
B

C

D







TUNER UNIT

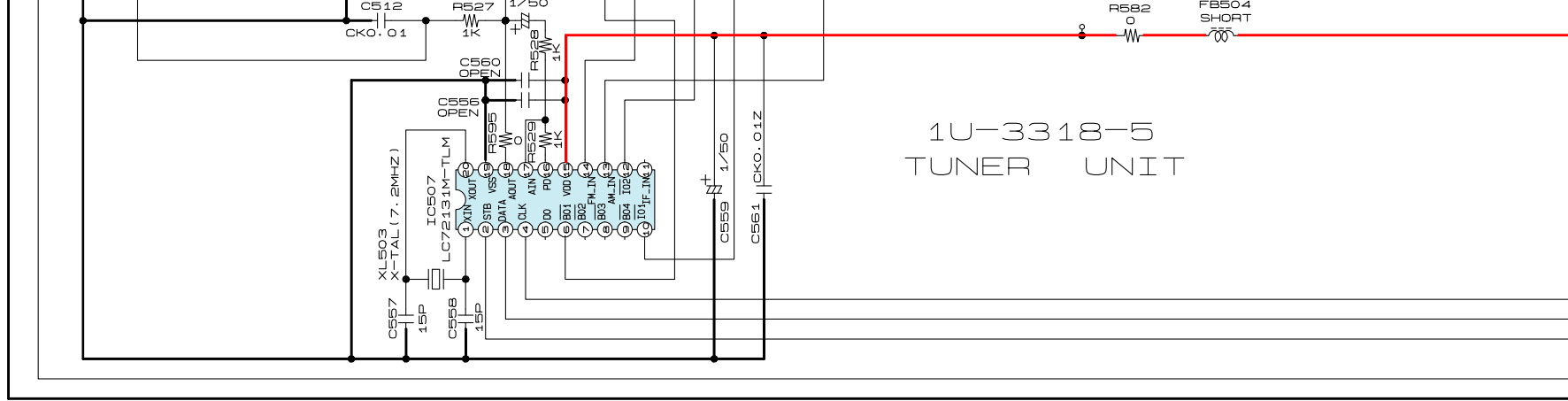
* NO	* USA CANADA	ASIA HONG KONG	CHINA TAIWAN R. O. C	EUROPE
1	C519	---	---	CK100p
2	R515	---	100	---
3	R516	---	1K	330
4	TR501	---	---	2SK211 (GR)
5	R517	---	---	330
6	R502	---	---	0
7	R536	---	0	2.7K
8	R544, 545	---	100K	150k
9	C539, 540	750p	510p	330P
10	R575, 576	---	120K	200k
11	C536	---	100p	---
12	R555, 556	---	5.6k	3.3K
13	C527	1/50	0.33/50	0.33/50
14	CF502	SFE 10.7MS2G	---	FMCFSK107 M2-A
15	CF501	SFE 10.7MA8	---	FMCFSK107 M2-A
16	C537	---	---	22/16
17	LF501	---	---	ANTI BIRDIE FILTER
18	LF503, 504	---	---	LPF 2320085004
19	IC501	F/E 2160102008	---	F/E 2169013004
20	R579	---	0	---
21	R535	18K	39K	39K
22	R569	---	---	5.6K
23	R570	---	---	10K
24	R580, 581	---	0	---
25	S501	---	SW	---
26	C576	---	CK1000P	---
27				

E

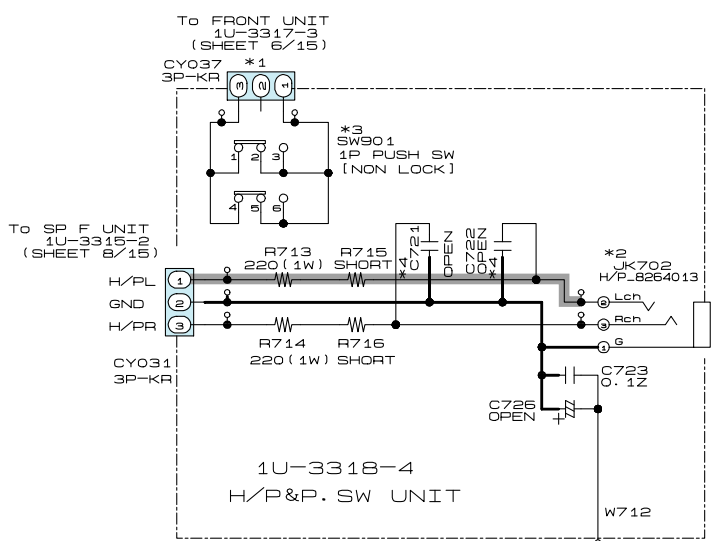
F

G

H



1U-3318-5  
TUNER UNIT



1U-3318-4  
H/P&P. SW UNIT

**NOTICE**

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
 CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
 NOTICE.

**WARNING:**

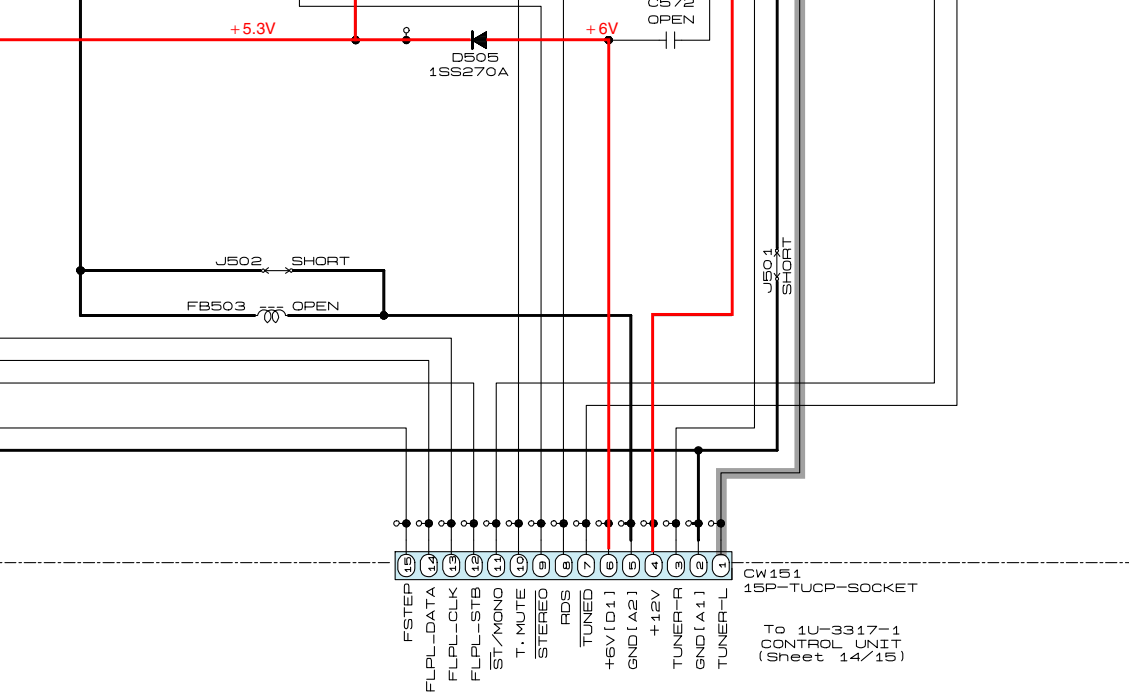
Parts marked with this symbol  
 Use ONLY replacement parts

**CAUTION:**

Before returning the unit to service  
 leakage current check of the unit  
 current exceeds 0.5 milliamperes  
 of the power card is less than 100 microamperes

**WARNING:**

DO NOT return the unit to service  
 corrected.



— + B LINE  
— SIGNAL

27			
28			
29			
30			
31			
32			
33			
34			
35			

H/P & P. SW UNIT

*	NO	* USA CANADA	ASIA HONG KONG	CHINA TAIWAN R. O. C	EUROPE
1	CY037	3P-KR		---	
2	JK702	H/P JACK (NI)		H/P JACK (GOLD)	
3	SW901	1P PUSH SW		---	
4	C721-722		---		CQ1000P
5					

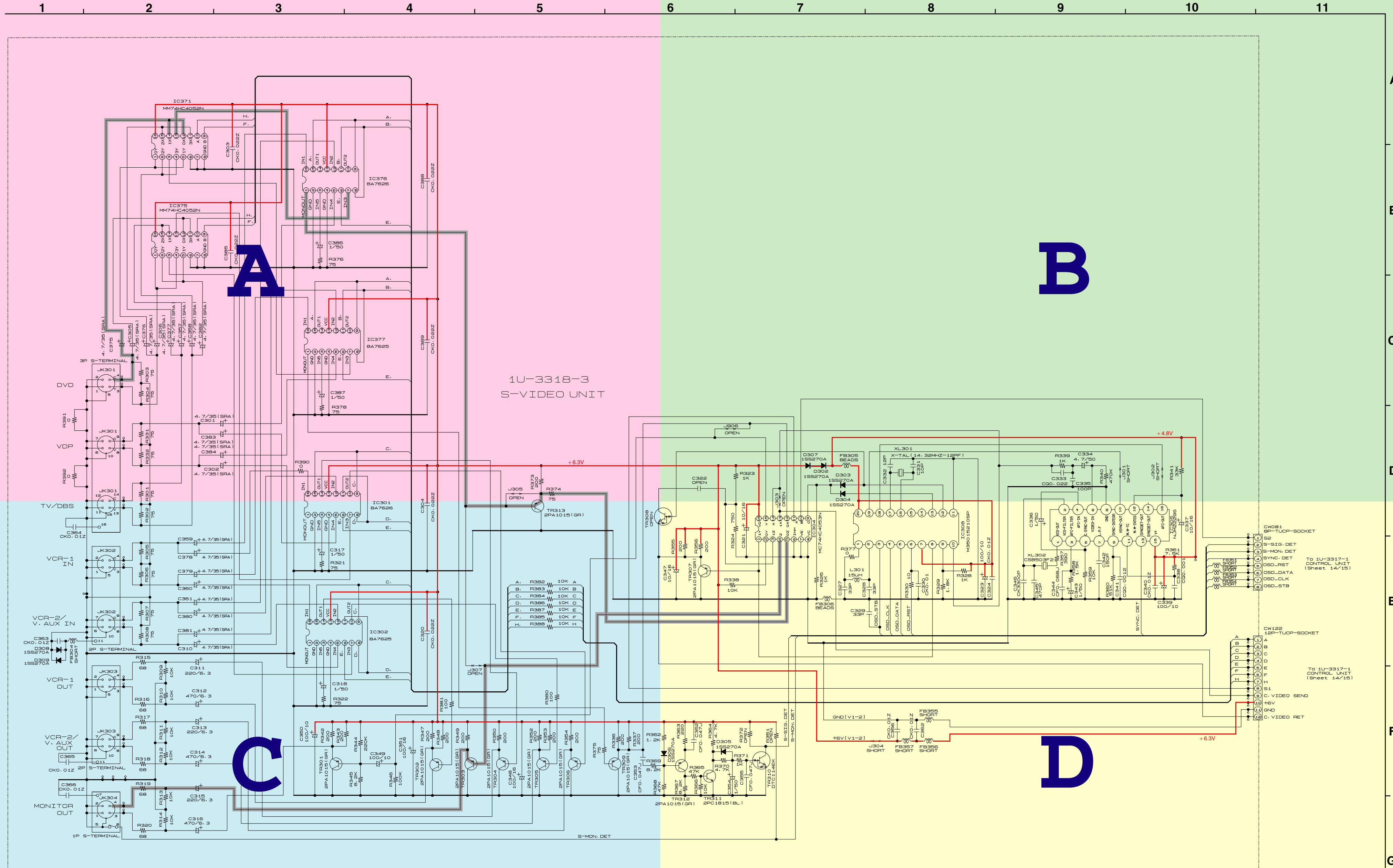
symbol have critical characteristics.  
 parts recommended by the manufacture.

to the customer, make sure you make either (1) a  
 or (2) a line to chassis resistance check. If the leakage  
 amps, or if the resistance from chassis to either side  
 s than 460 kohms, the unit is defective.

to the customer until the problem is located and

**SCHEMATIC DIAGRAMS (11/15)**  
 1U-3318-5 TUNER UNIT  
 1U-3318-4 H/P & P. SW UNIT

SCHMATIC DIAGRAMS (12/15)



A

B

C

D

1U-3318-3  
S-VIDEO UNIT

- A. R382 10K A
- B. R383 10K B
- C. R384 10K C
- D. R386 10K D
- E. R387 10K E
- F. R385 10K F
- H. R388 10K H

**WARNING:**  
Parts marked with this symbol have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and corrected.

**NOTICE**  
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

— + B LINE  
— SIGNAL

# SCHEMATIC DIAGRAMS (12/15)

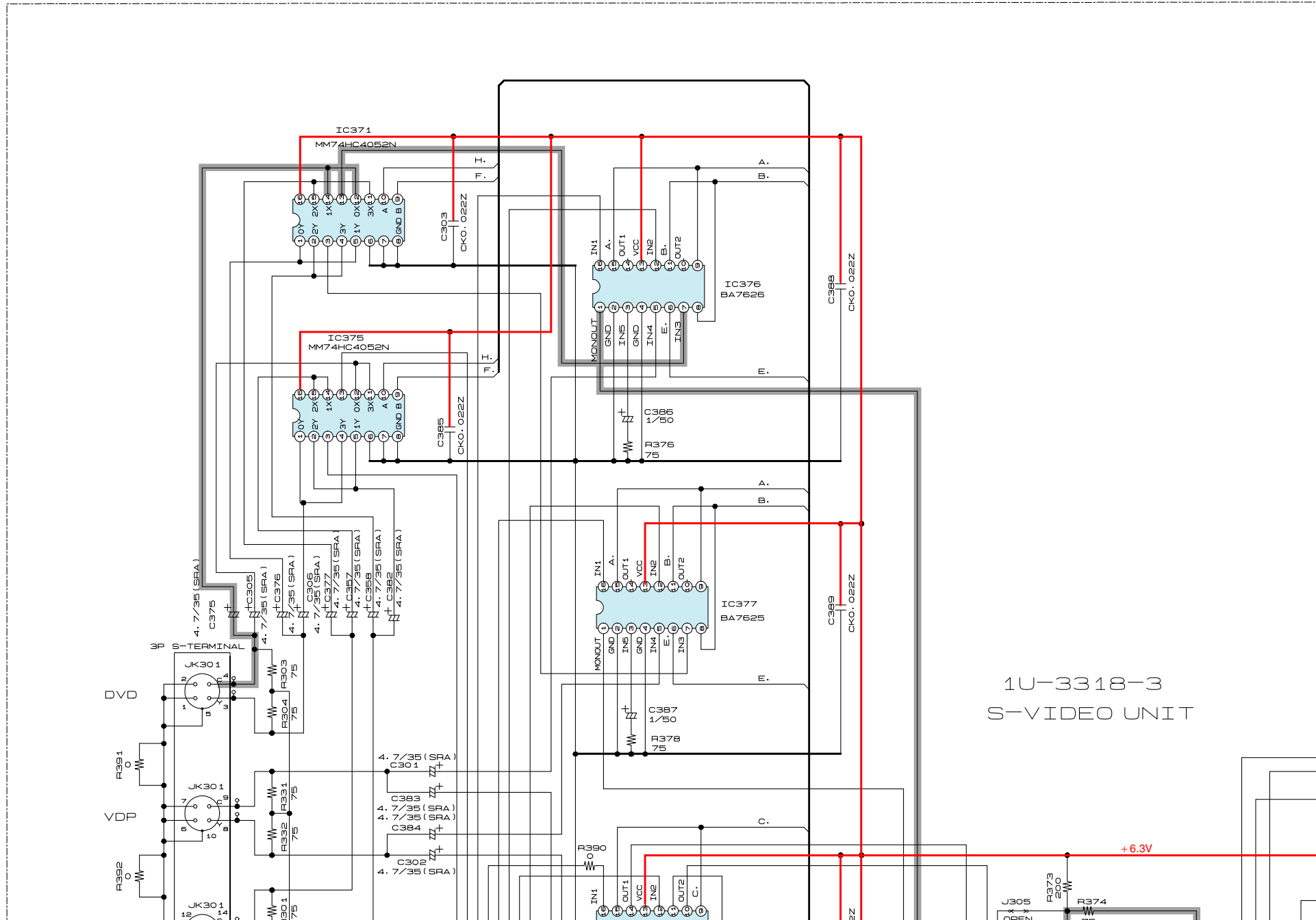
1

2

3

4

5



6

7

8

9

10

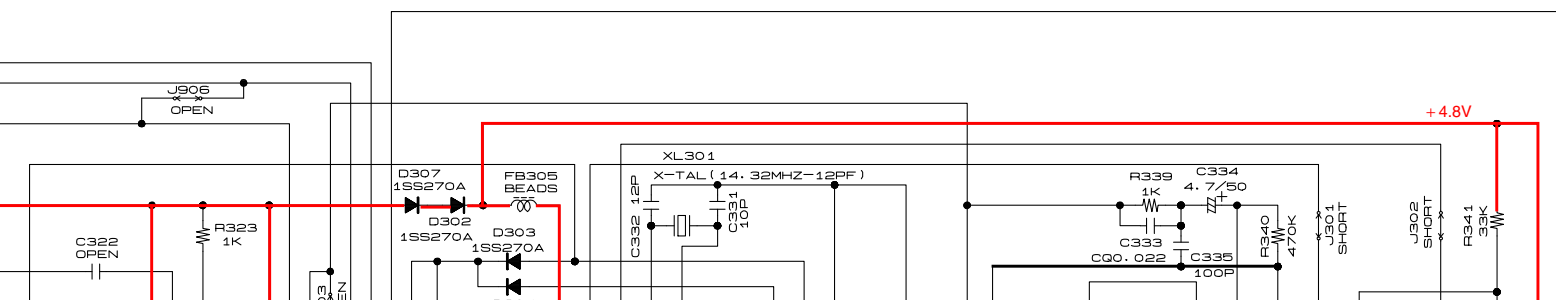
11

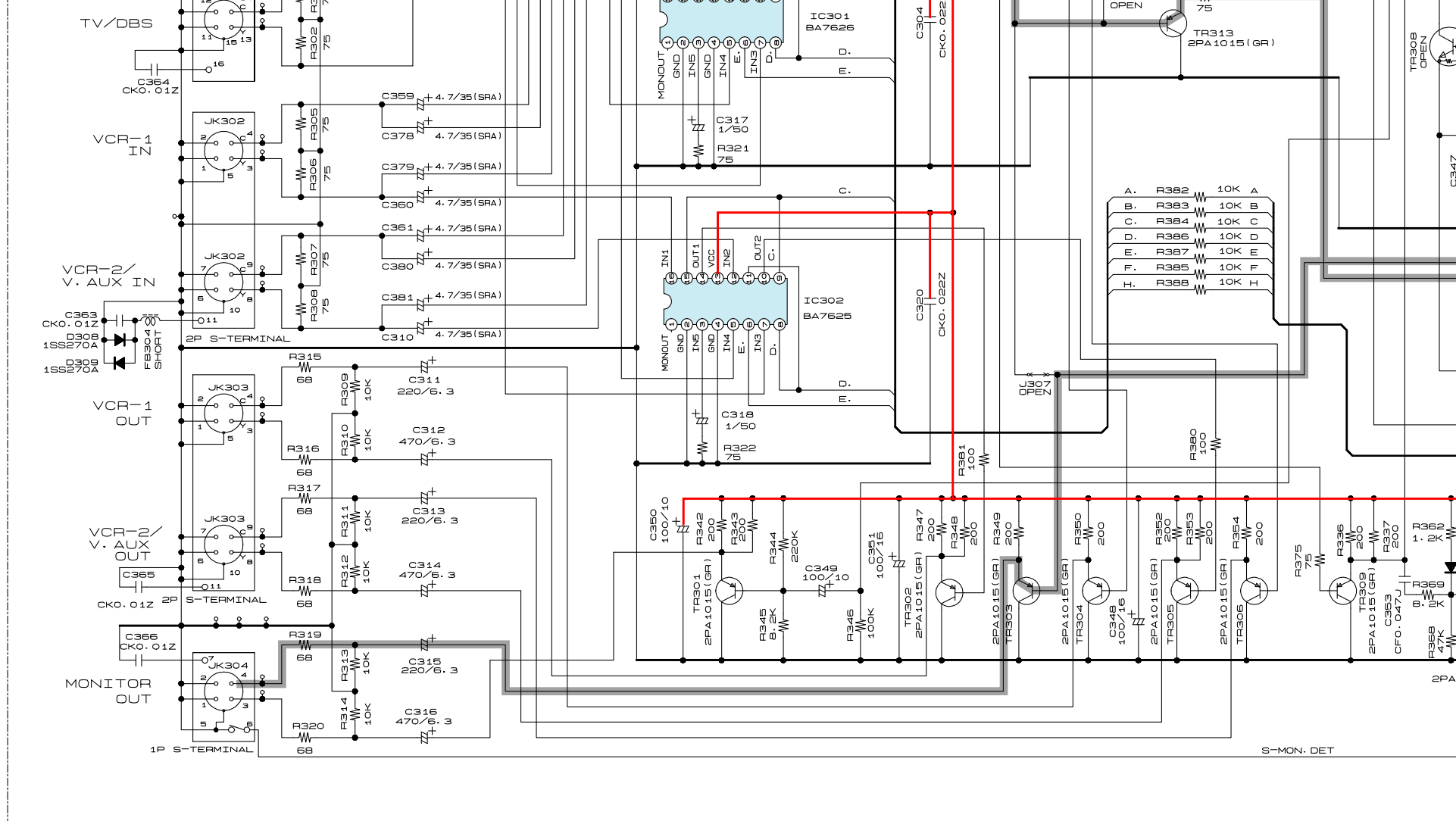
A

B

C

D






**NOTICE**

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
 CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
 NOTICE.

**WARNING:**

Parts marked with this symbol  have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**

DO NOT return the unit to the customer until the problem is located and corrected.





SCHEMATIC DIAGRAMS (13/15)

1 2 3 4 5 6 7 8 9 10 11

A

B

C

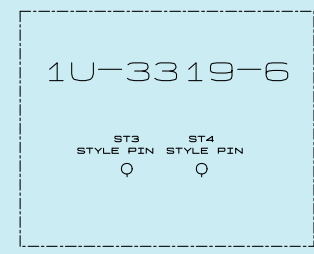
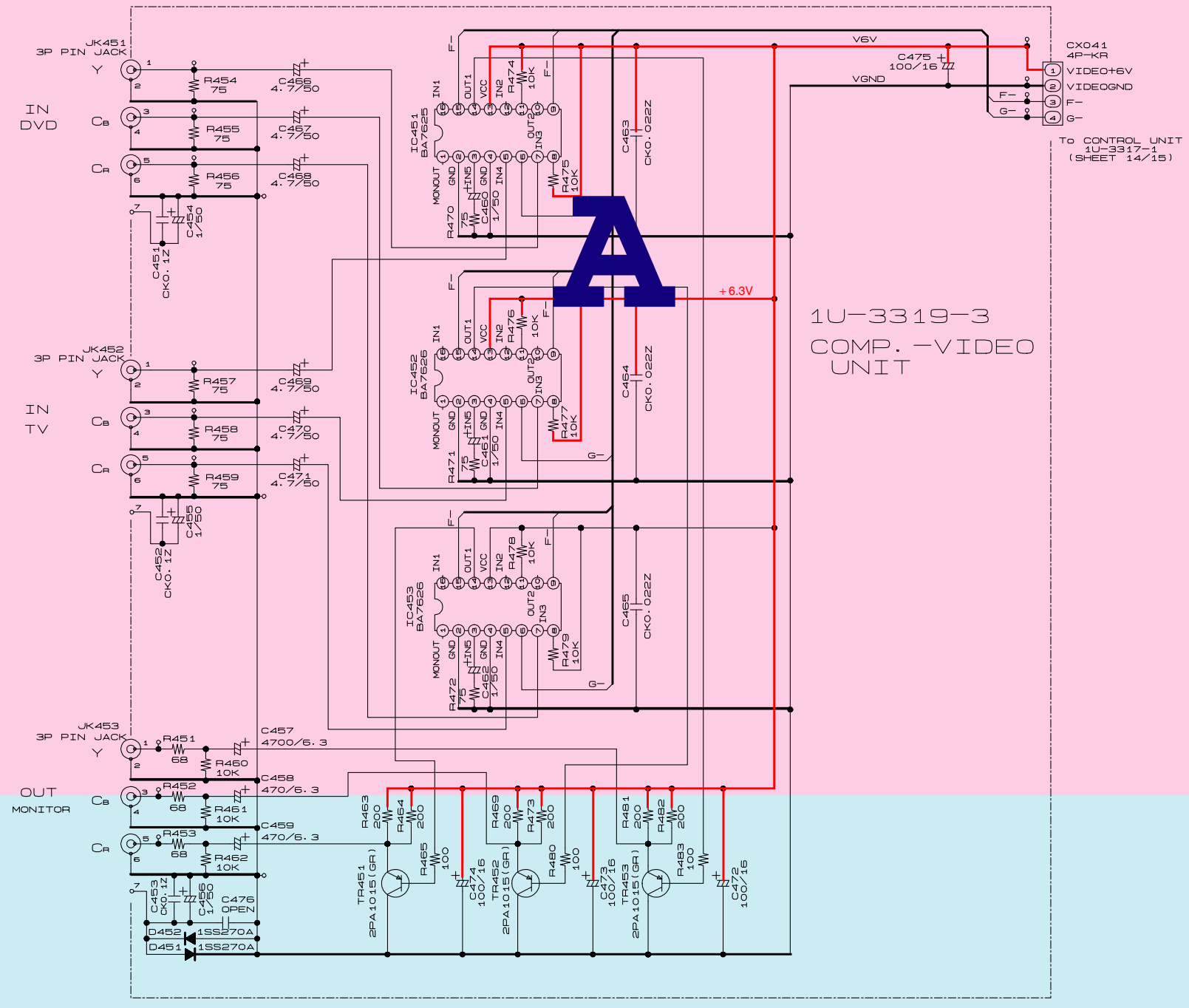
D

E

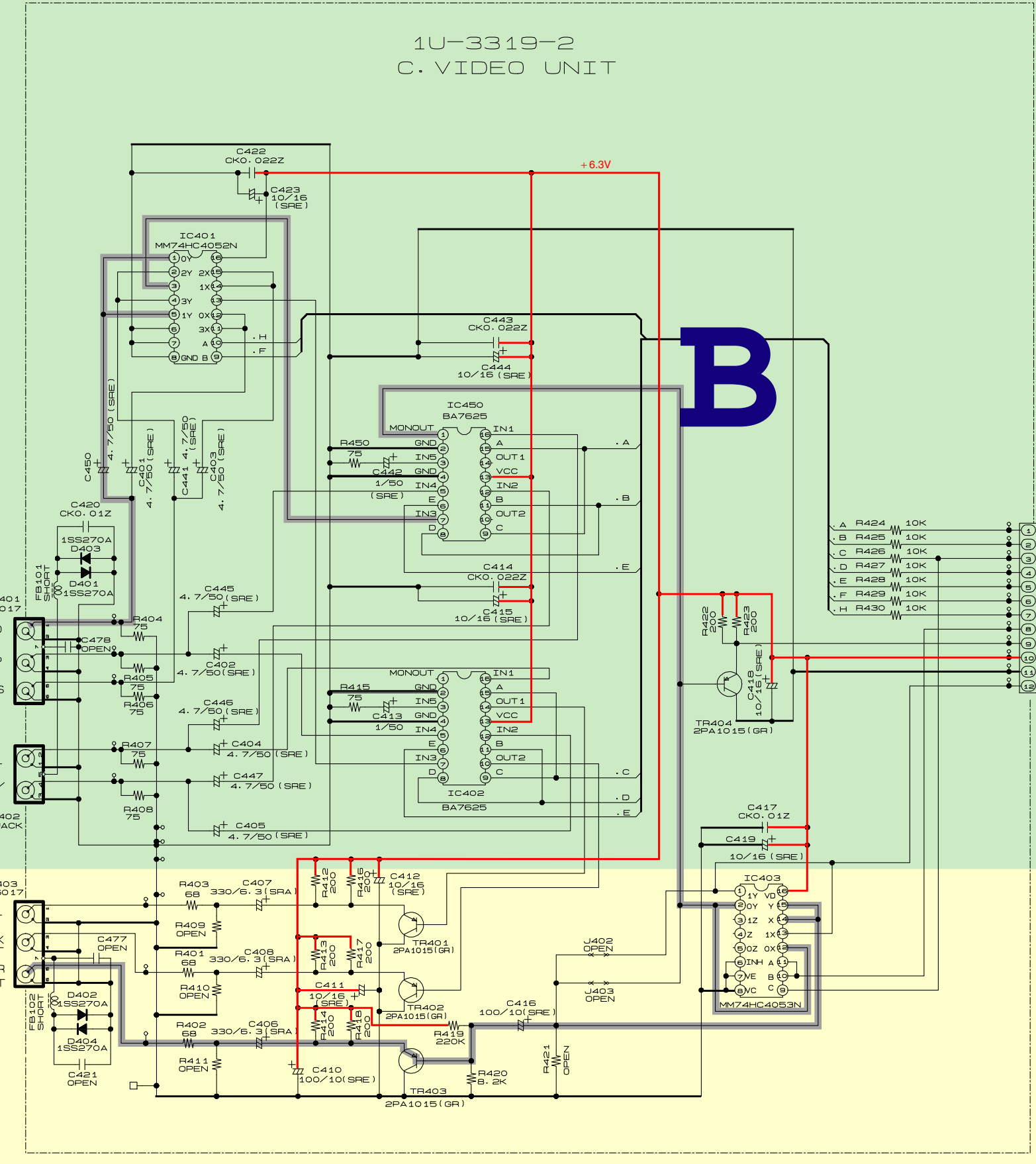
F

G

H



C



D

— + B LINE  
— SIGNAL

**WARNING:**  
Parts marked with this symbol have critical characteristics. Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAMS (13/15)  
1U-3319-2 C. VIDEO UNIT  
1U-3319-3 COMP. VIDEO UNIT

# SCHEMATIC DIAGRAMS (13/15)

1

2

3

4

5

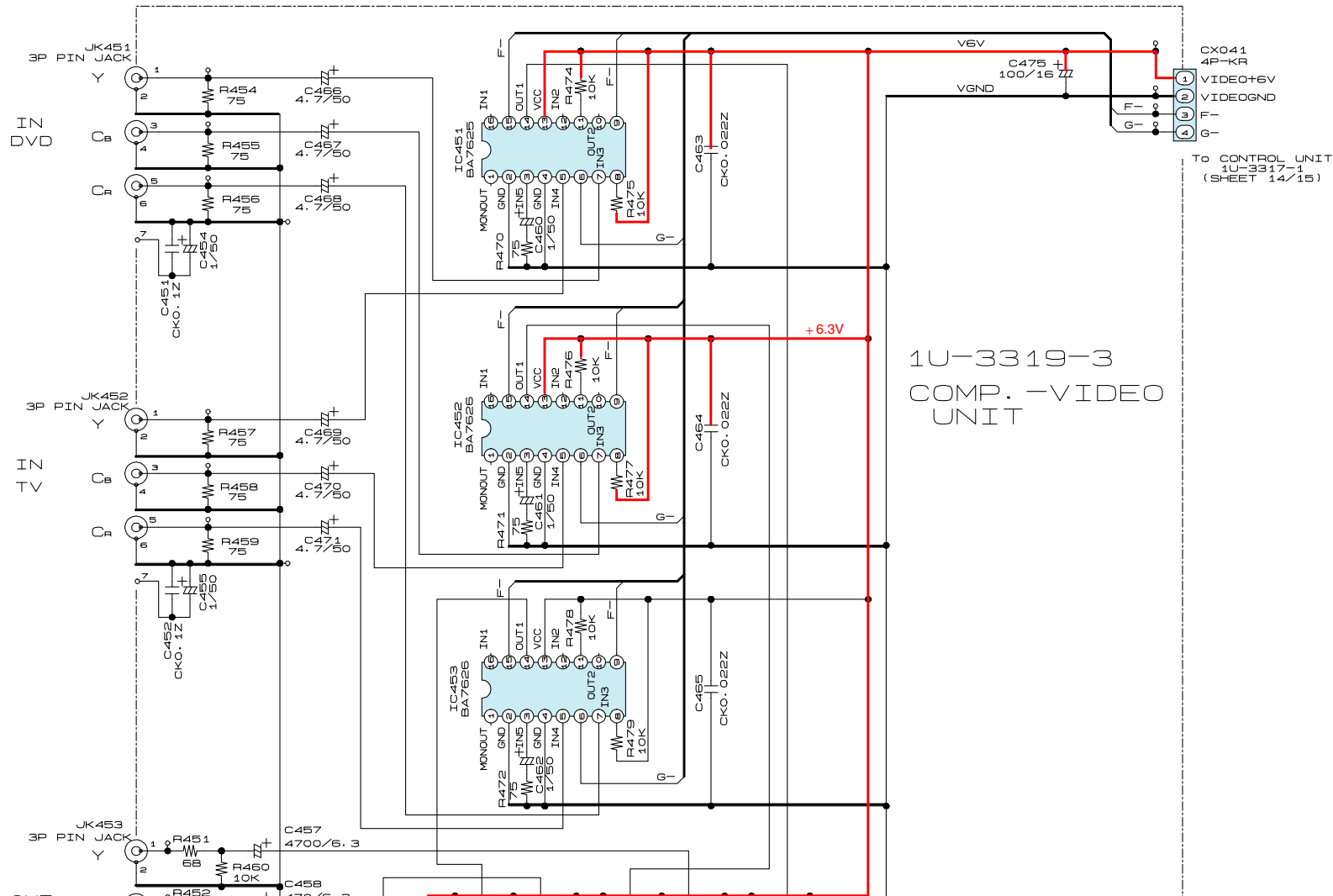
6

A

B

C

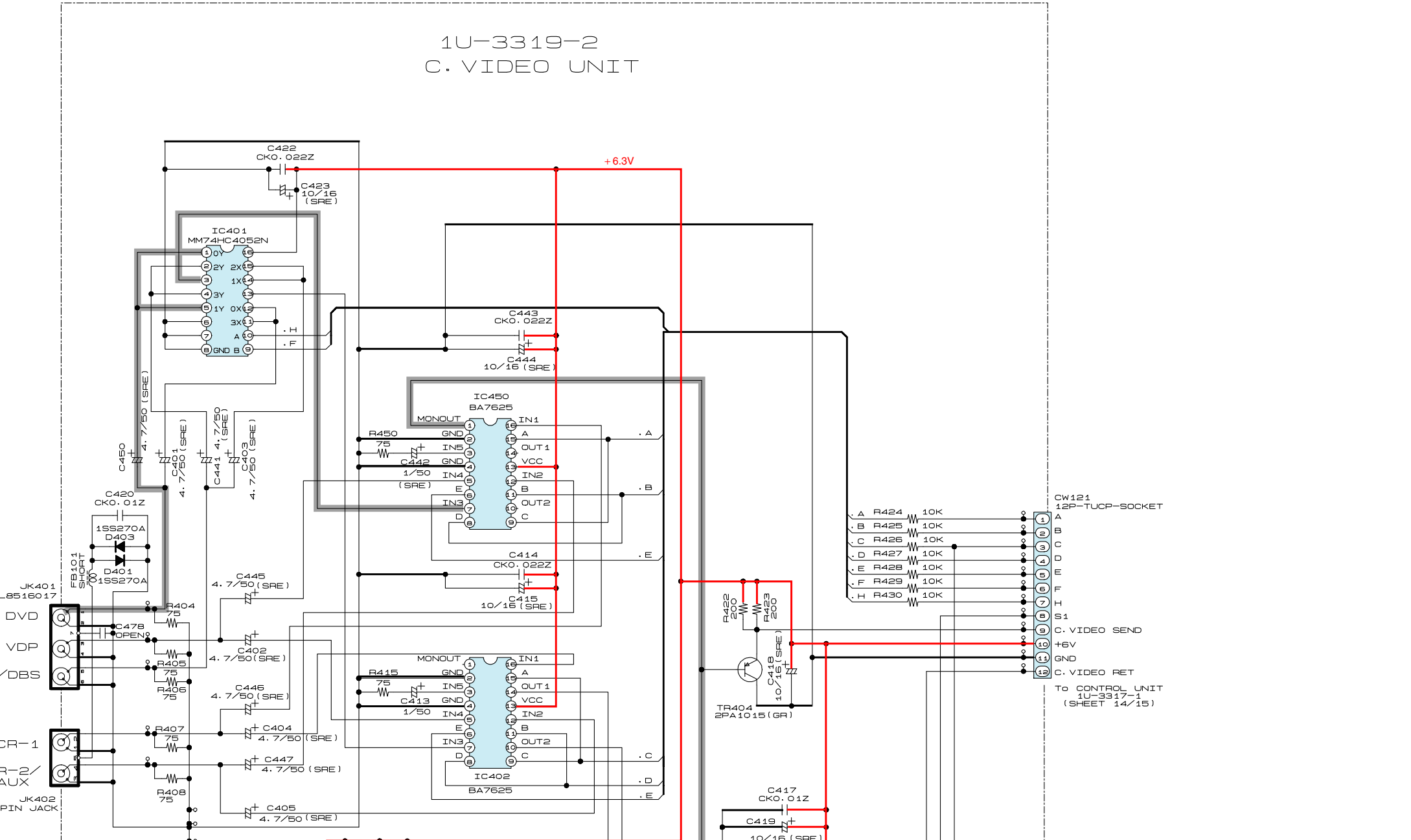
D



1U-3319-3  
COMP. -VIDEO  
UNIT

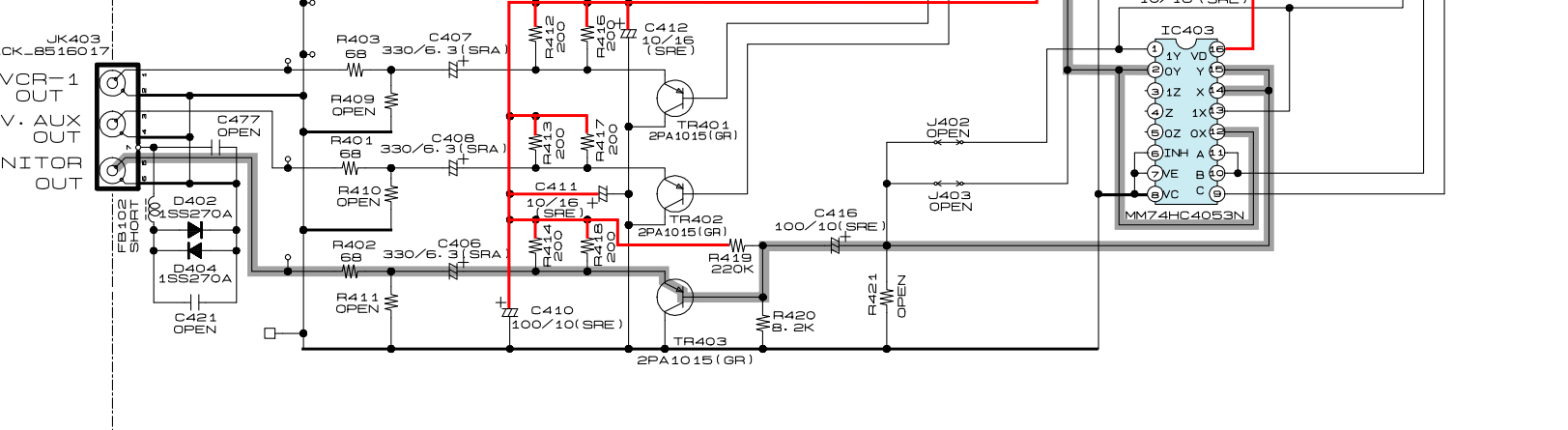
CX041  
4P-KR  
VIDEO+6V  
VIDEOGND  
F-  
G-  
TO CONTROL UNIT  
1U-3317-1  
(SHEET 14/15)

# 1U-3319-2 C. VIDEO UNIT





- CW121  
12P-TUCP-SOCKET
- A R424 10K
  - B R425 10K
  - C R426 10K
  - D R427 10K
  - E R428 10K
  - F R429 10K
  - H R430 10K
- S1  
C. VIDEO SEND  
+6V  
GND  
C. VIDEO RET
- TO CONTROL UNIT  
1U-3317-1  
(SHEET 14/15)





— + B LINE  
— SIGNAL

this symbol   have critical characteristics.  
 ment parts recommended by the manufacture.

e unit to the customer, make sure you make either (1) a  
 eck or (2) a line to chassis resistance check. If the leakage  
 5 milliamps, or if the resistance from chassis to either side  
 s less than 460 kohms, the unit is defective.

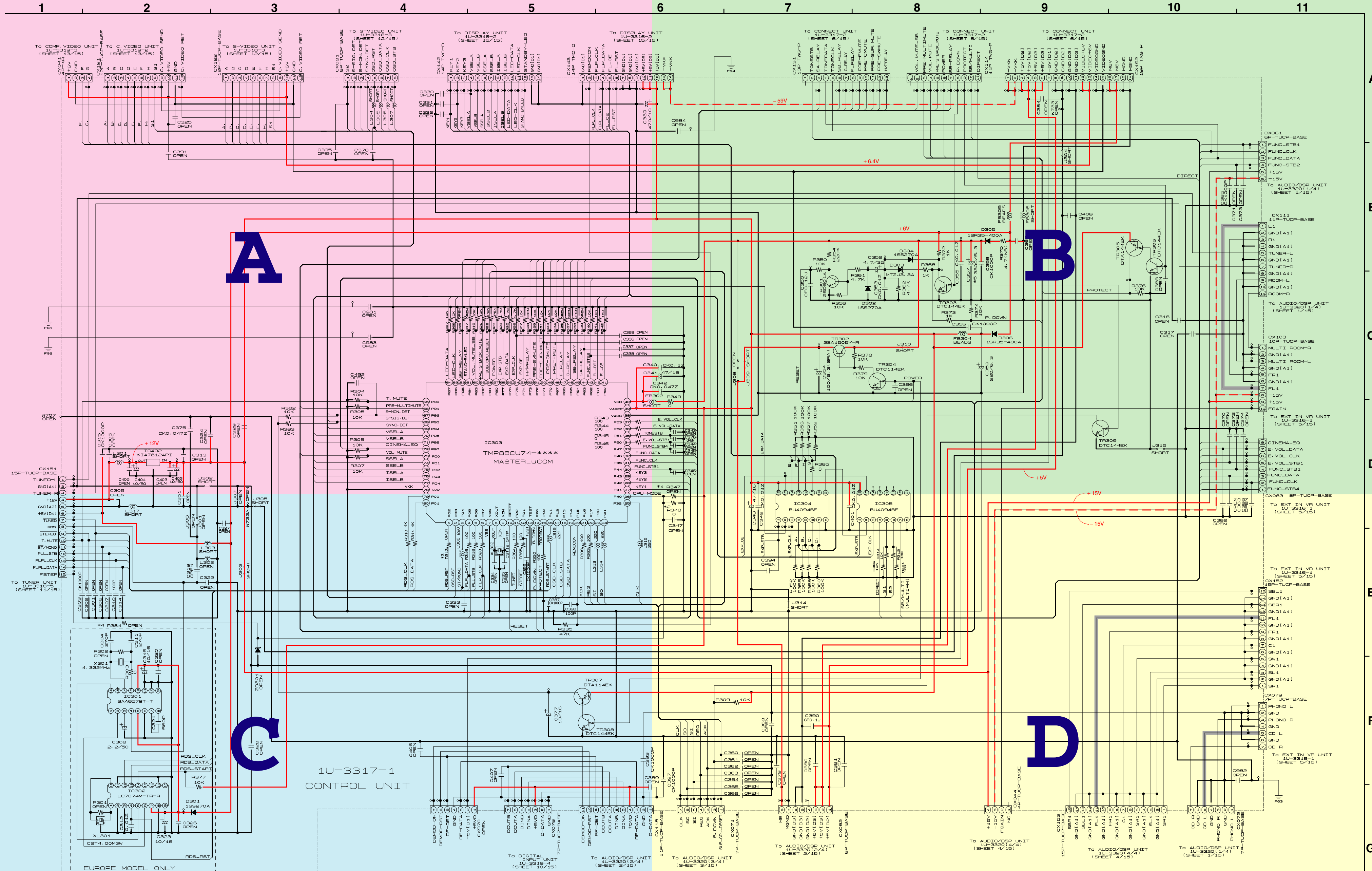
e unit to the customer until the problem is located and

### SCHEMATIC DIAGRAMS (13/15)

1U-3319-2 C.VIDEO UNIT  
 1U-3319-3 COMP. -VIDEO UNIT



SCHEMATIC DIAGRAMS (14/15)



1U-3317-1 CONTROL UNIT

	*1	*2	*3	*4	*5
* USA CANADA	OPEN	0	OPEN	OPEN	3300/5.3
EUROPE	0	OPEN	1K	OPEN	8200/5.5
ASIA HONG KONG	1K	5.1K	OPEN	1.3K	8200/5.5
CHINA TAIWAN P.O.C.	4.7K	4.7K	OPEN	OPEN	8200/5.5

— + B LINE  
 - - - - -B LINE  
 ——— SIGNAL

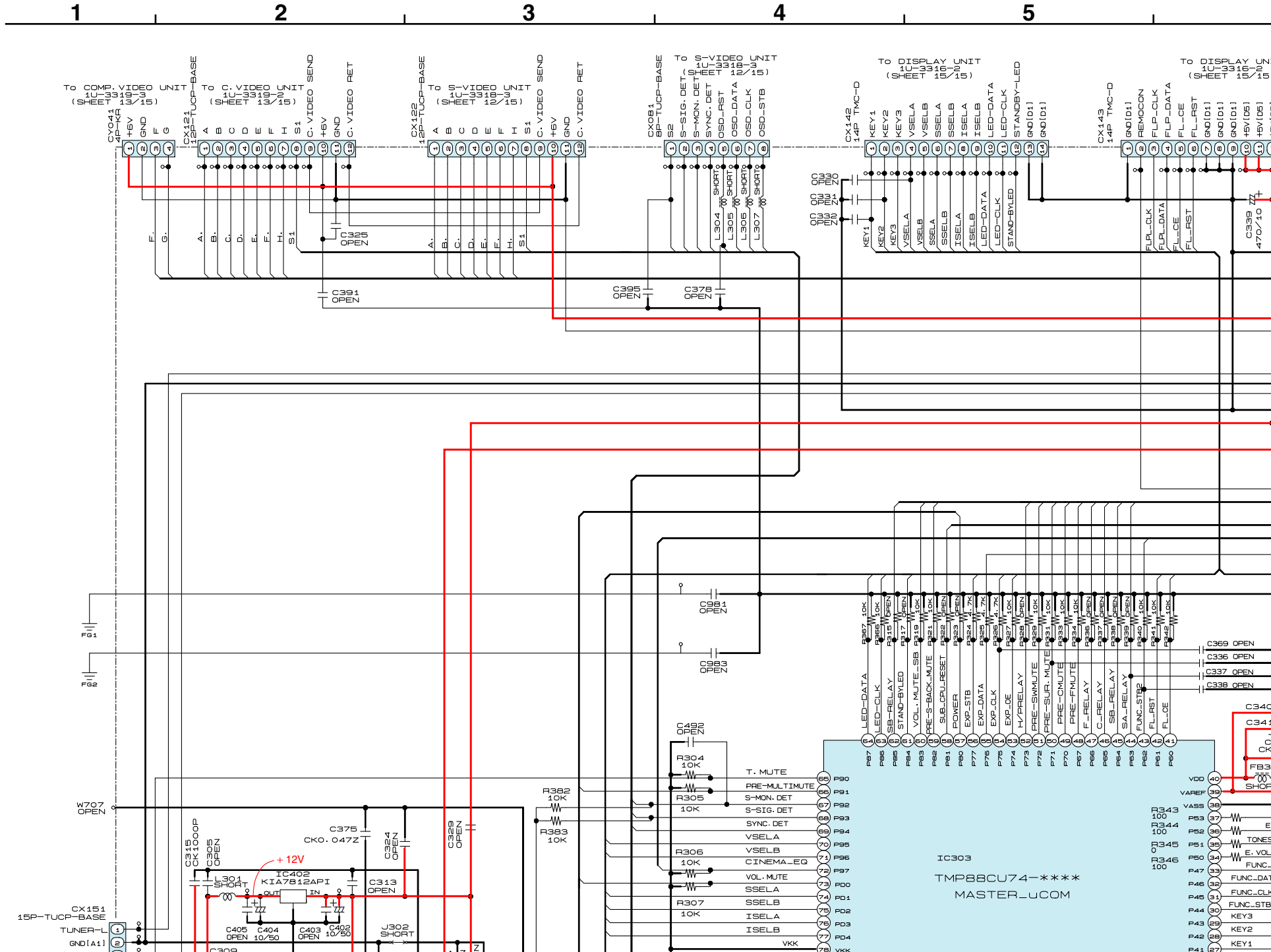
**NOTICE**  
 ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

**WARNING:**  
 Parts marked with this symbol have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.  
**CAUTION:**  
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamperes, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.  
**WARNING:**  
 DO NOT return the unit to the customer until the problem is located and corrected.

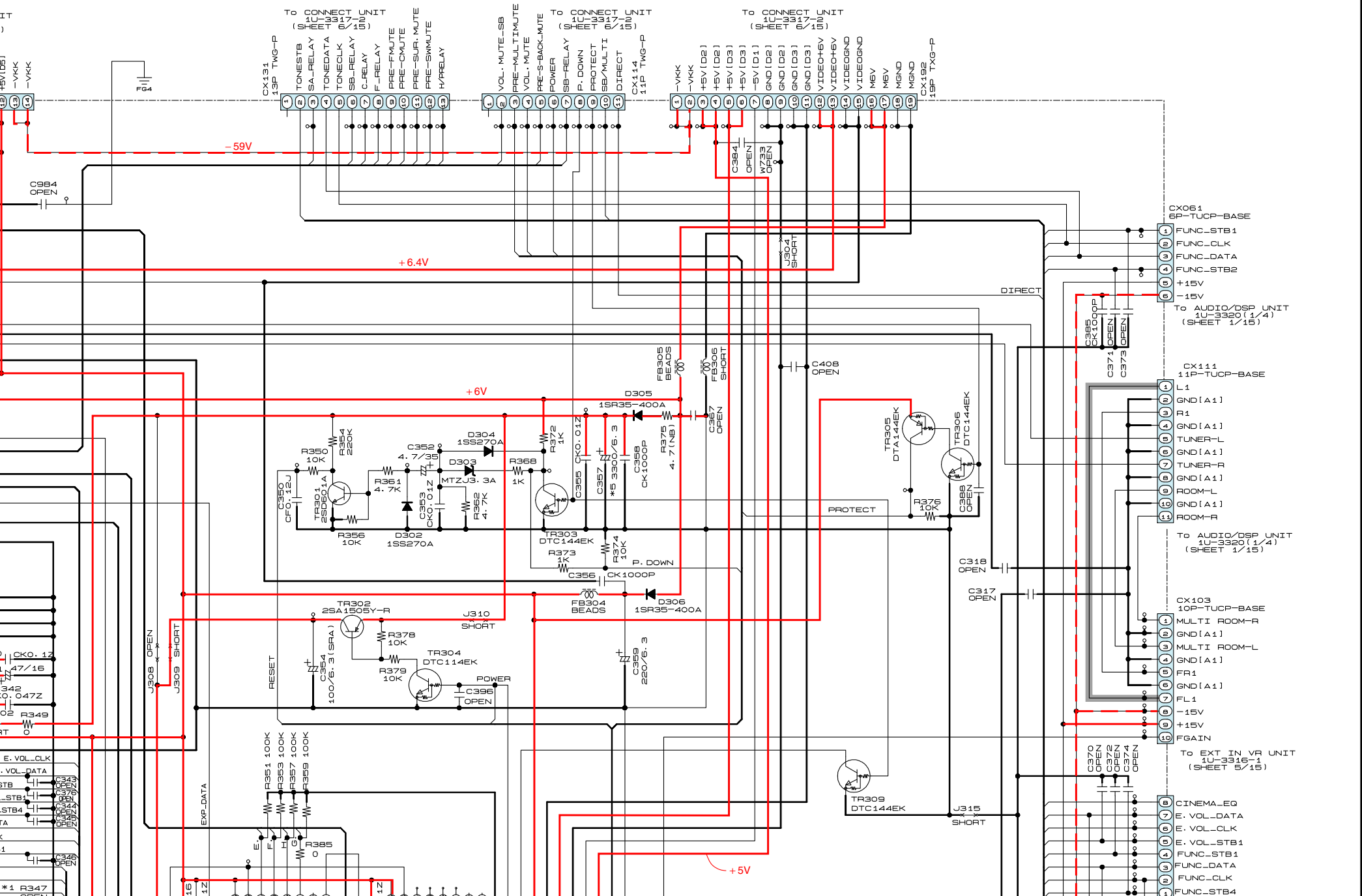
1U-3317-1 CONTROL UNIT



# SCHEMATIC DIAGRAMS (14/15)



6 7 8 9 10 11



A

B

C

D

CX061  
6P-TUCP-BASE

- 1 FUNC-STB1
- 2 FUNC-CLK
- 3 FUNC\_DATA
- 4 FUNC-STB2
- 5 +15V
- 6 -15V

To AUDIO/DSP UNIT  
1U-3320 (1/4)  
(SHEET 1/15)

CX111  
11P-TUCP-BASE

- 1 L1
- 2 GND [A1]
- 3 R1
- 4 GND [A1]
- 5 TUNER-L
- 6 GND [A1]
- 7 TUNER-R
- 8 GND [A1]
- 9 ROOM-L
- 10 GND [A1]
- 11 ROOM-R

To AUDIO/DSP UNIT  
1U-3320 (1/4)  
(SHEET 1/15)

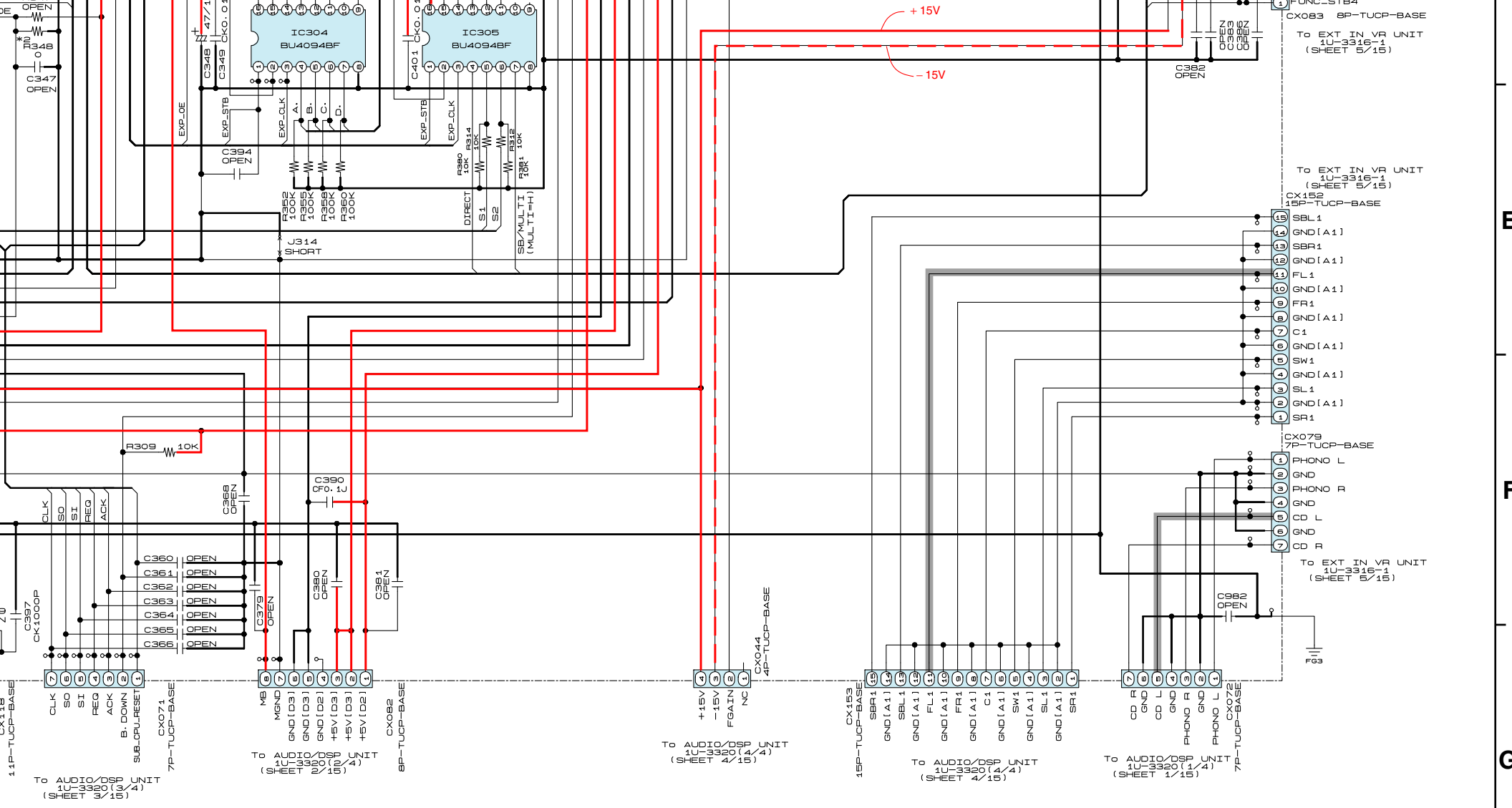
CX103  
10P-TUCP-BASE

- 1 MULTI ROOM-R
- 2 GND [A1]
- 3 MULTI ROOM-L
- 4 GND [A1]
- 5 FR1
- 6 GND [A1]
- 7 FL1
- 8 -15V
- 9 +15V
- 10 FGAIN

To EXT IN VR UNIT  
1U-3316-1  
(SHEET 5/15)

- 6 CINEMA\_EQ
- 7 E. VOL\_DATA
- 8 E. VOL\_CLK
- 9 E. VOL-STB1
- 10 FUNC-STB1
- 11 FUNC\_DATA
- 12 FUNC-CLK
- 13 FUNC-STB4





**WARNING:**

Parts marked with this symbol have critical characteristics. Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**

DO NOT return the unit to the customer until the problem is located and corrected.

1U-3317-1  
CONTROL UNIT

**SCHEMATIC DIAGRAMS (14/15)**  
1U-3317-1 CONTROL UNIT

M. k=1,000 OHM M=1,000,000 OHM  
ICRO FARAD. P=MICRO-MICRO FARAD  
ARE MEASUERD AT NO SIGNAL INPUT

ECT TO CHANGE WITHOUT PRIOR

E

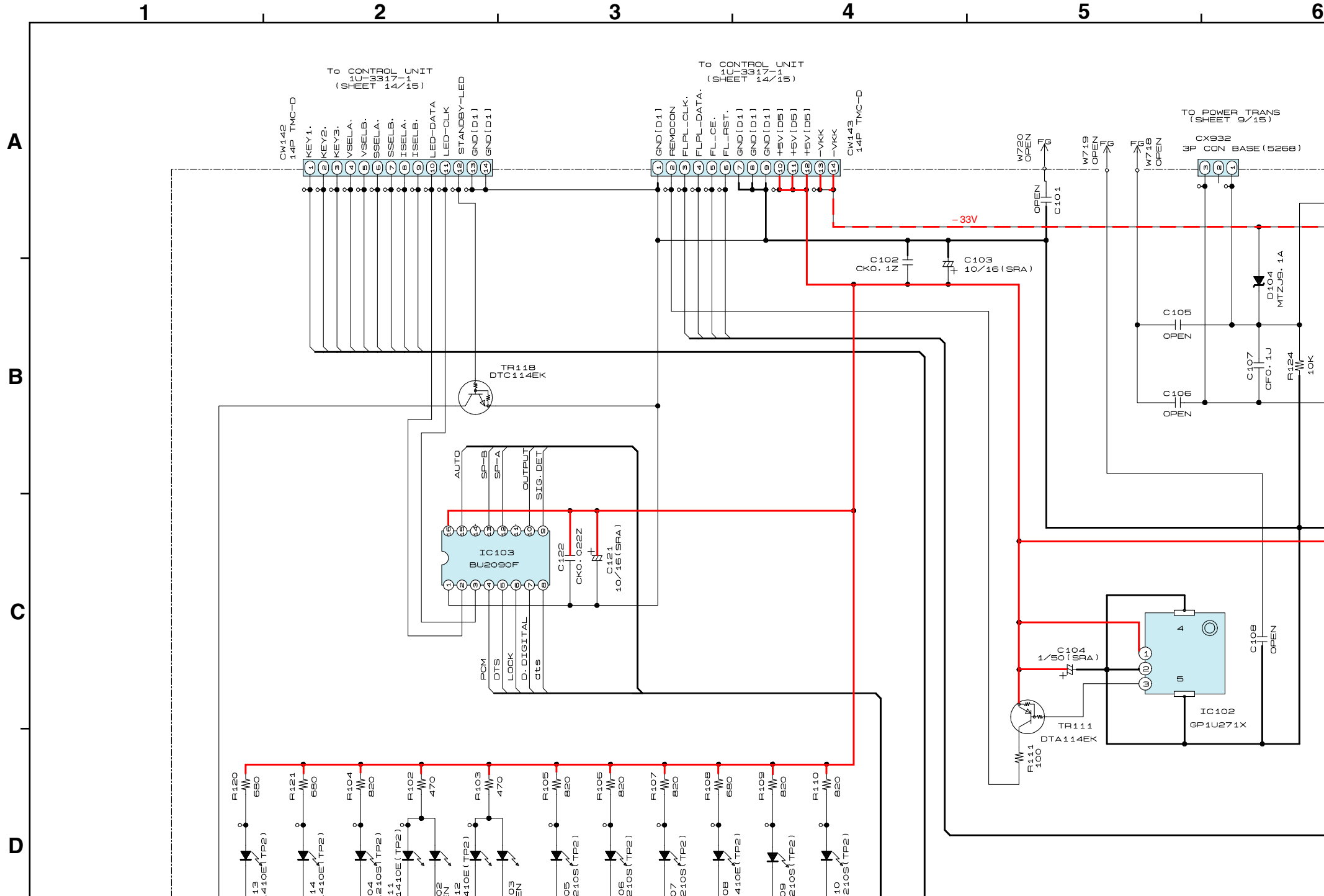
F

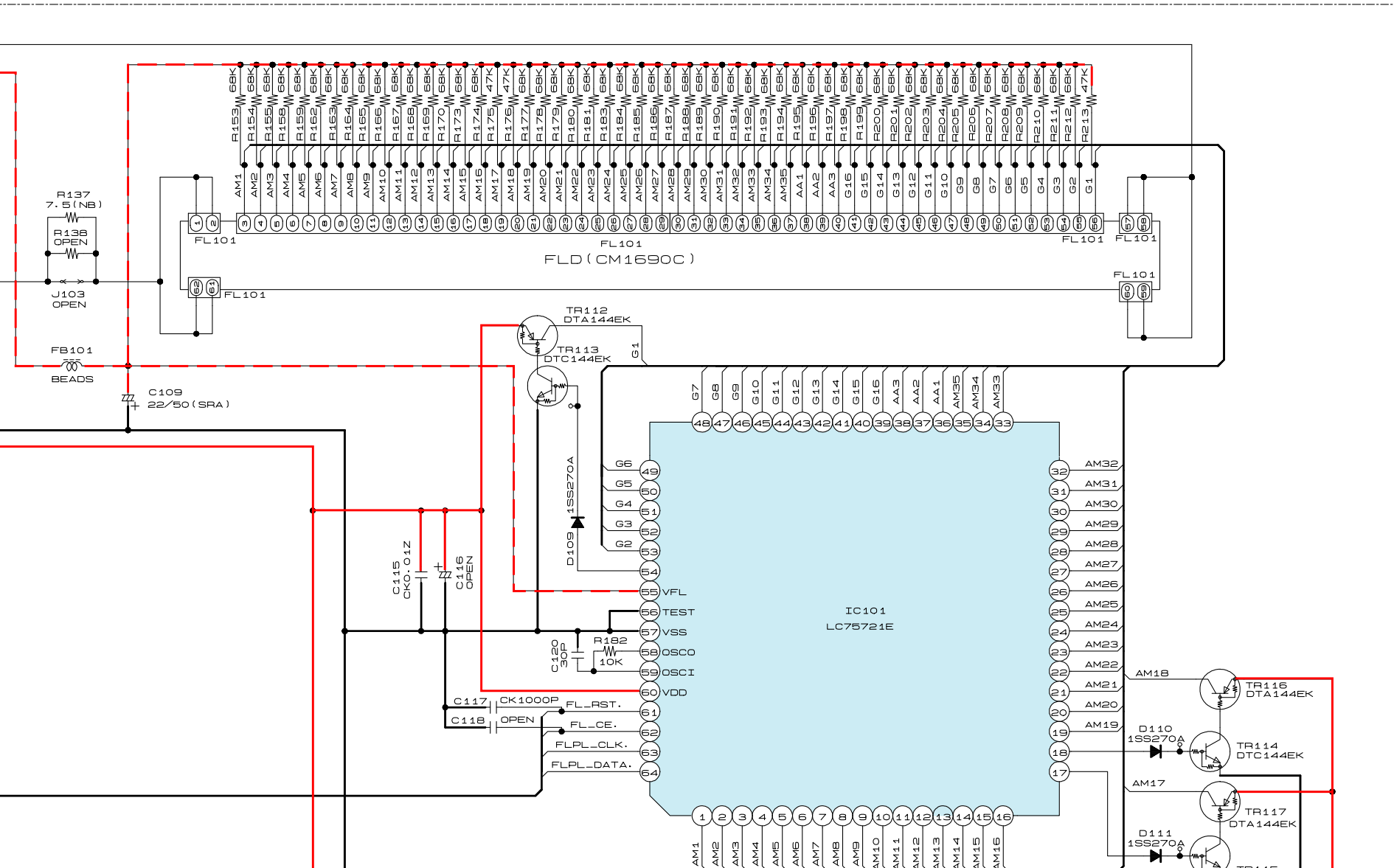
G

H



# SCHEMATIC DIAGRAMS (15/15)





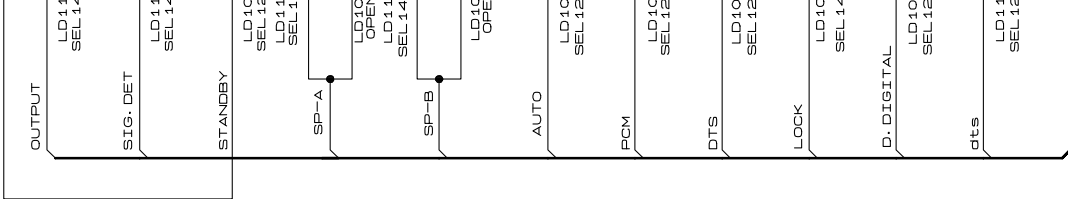


E

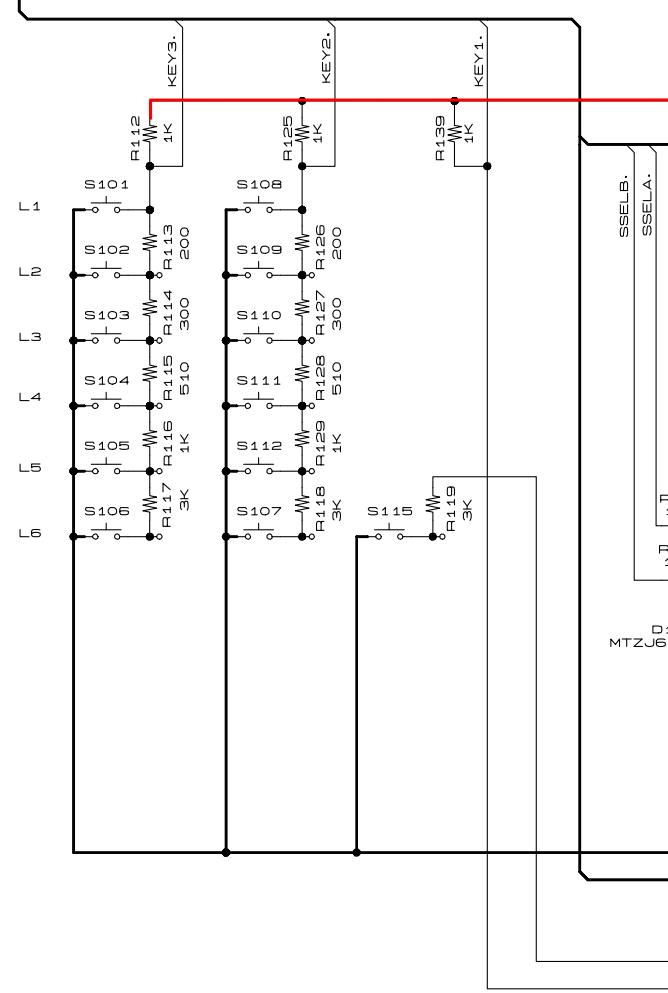
F

G

H




# 1U-3316-1 DISPLAY UNIT



**NOTICE**

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
 CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
 NOTICE.

**WARNING:**

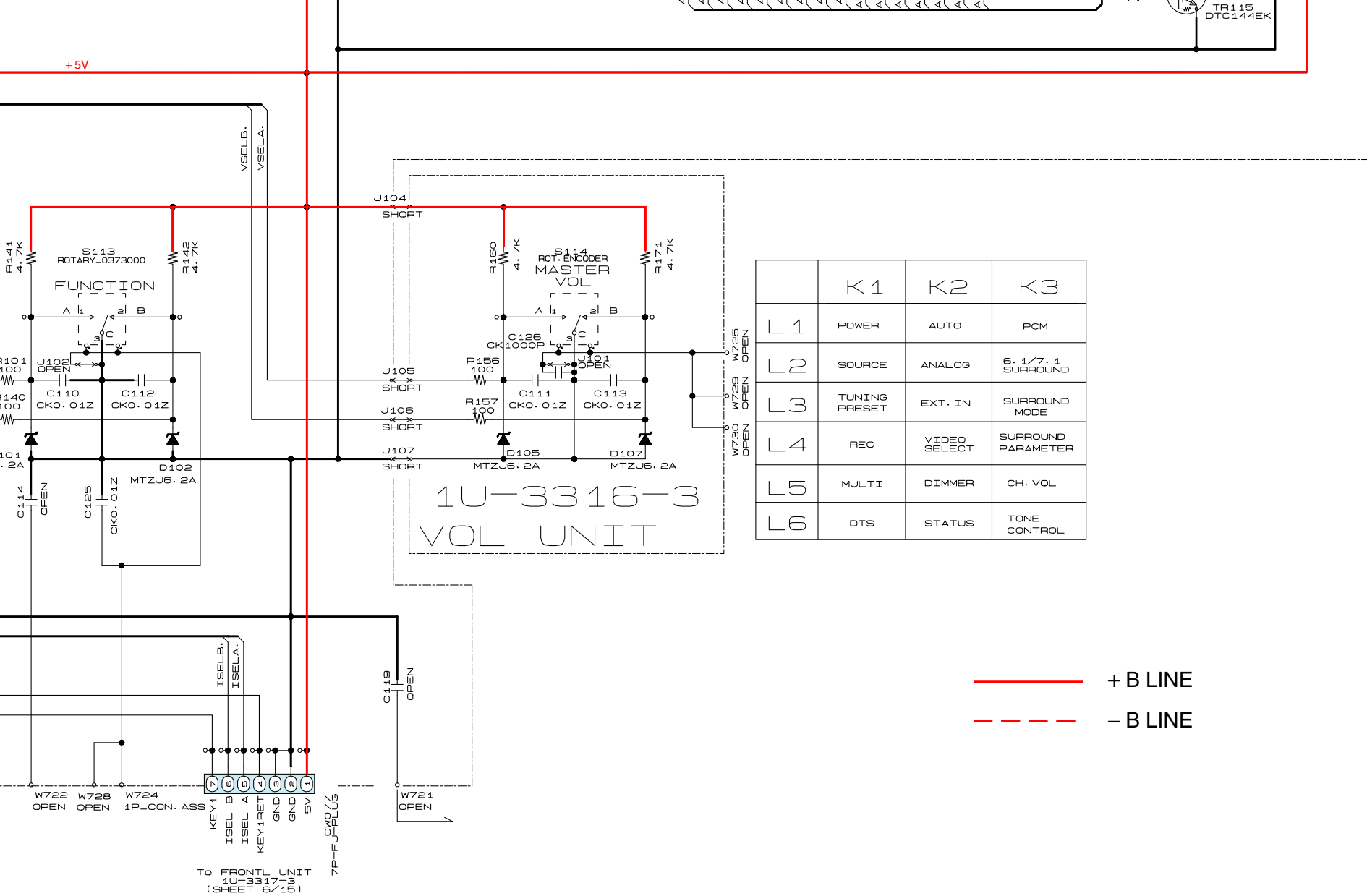
Parts marked with this symbol  have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacture.

**CAUTION:**

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.

**WARNING:**

DO NOT return the unit to the customer until the problem is located and corrected.



	K 1	K 2	K 3
L 1	POWER	AUTO	PCM
L 2	SOURCE	ANALOG	6. 1/7. 1 SURROUND
L 3	TUNING PRESET	EXT. IN	SURROUND MODE
L 4	REC	VIDEO SELECT	SURROUND PARAMETER
L 5	MULTI	DIMMER	CH. VOL
L 6	DTS	STATUS	STONE CONTROL

— + B LINE  
- - - - B LINE

SCHEMATIC DIAGRAMS (15/15)  
 1U-3316-2 DISPLAY UNIT  
 1U-3316-3 VOL UNIT