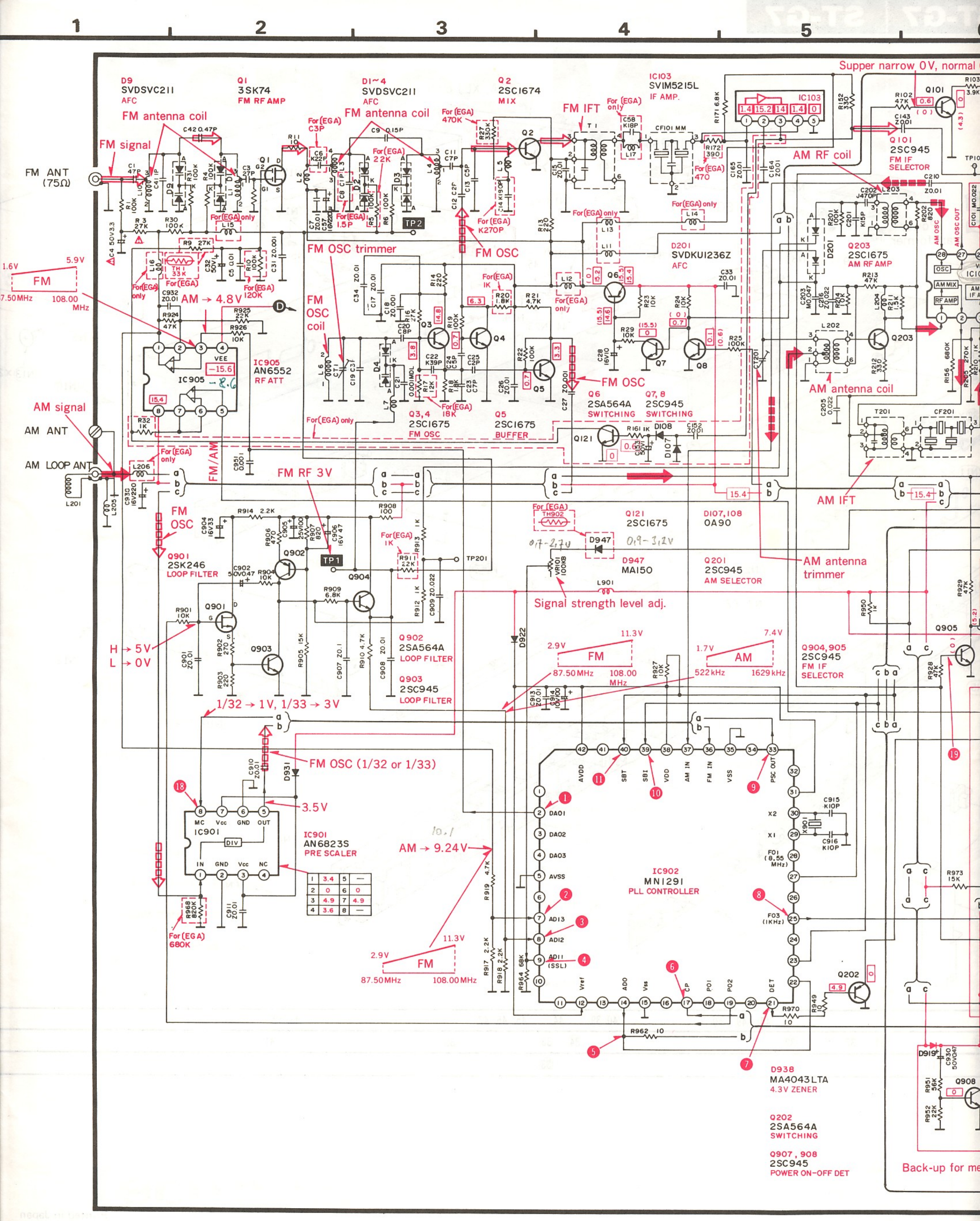
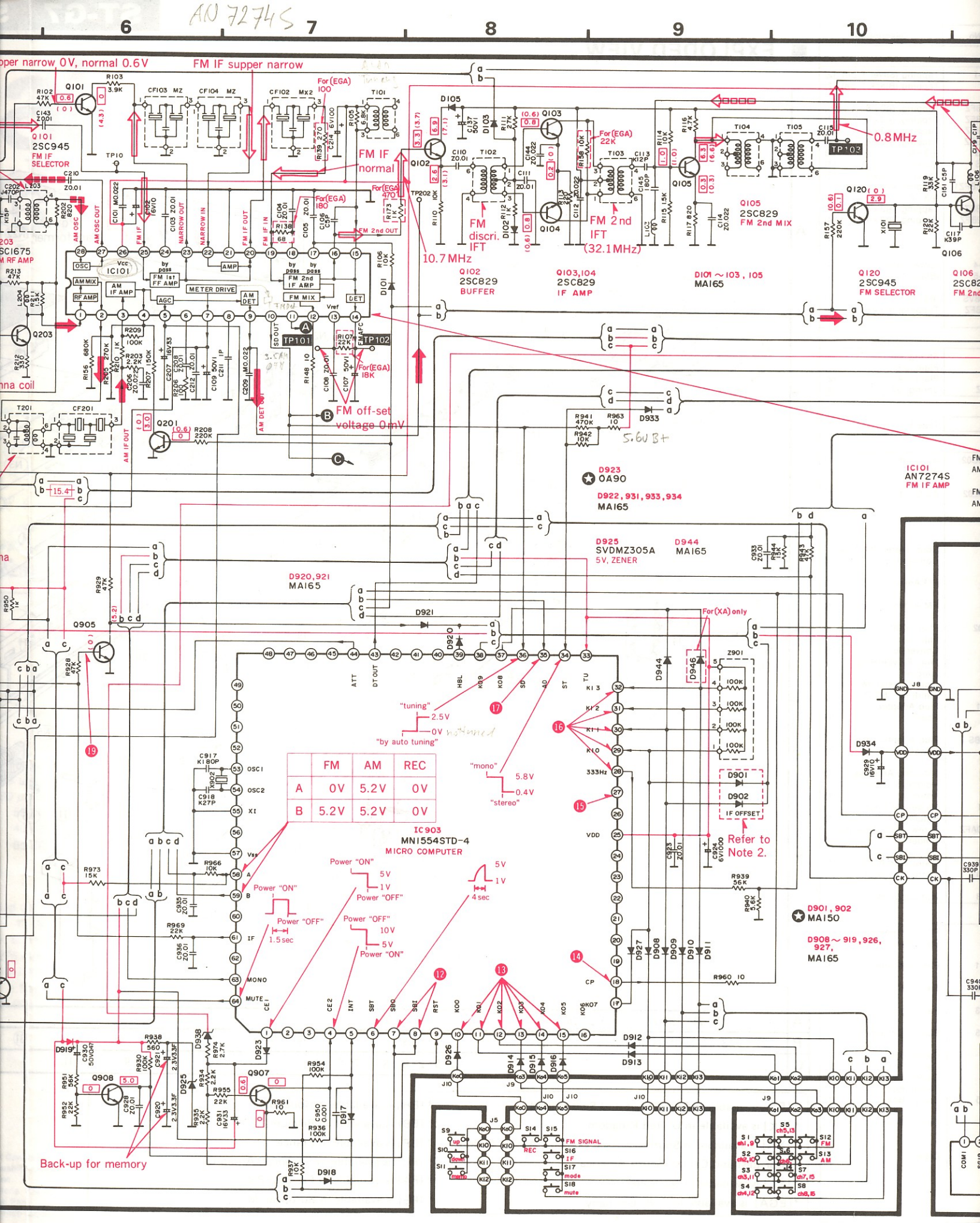
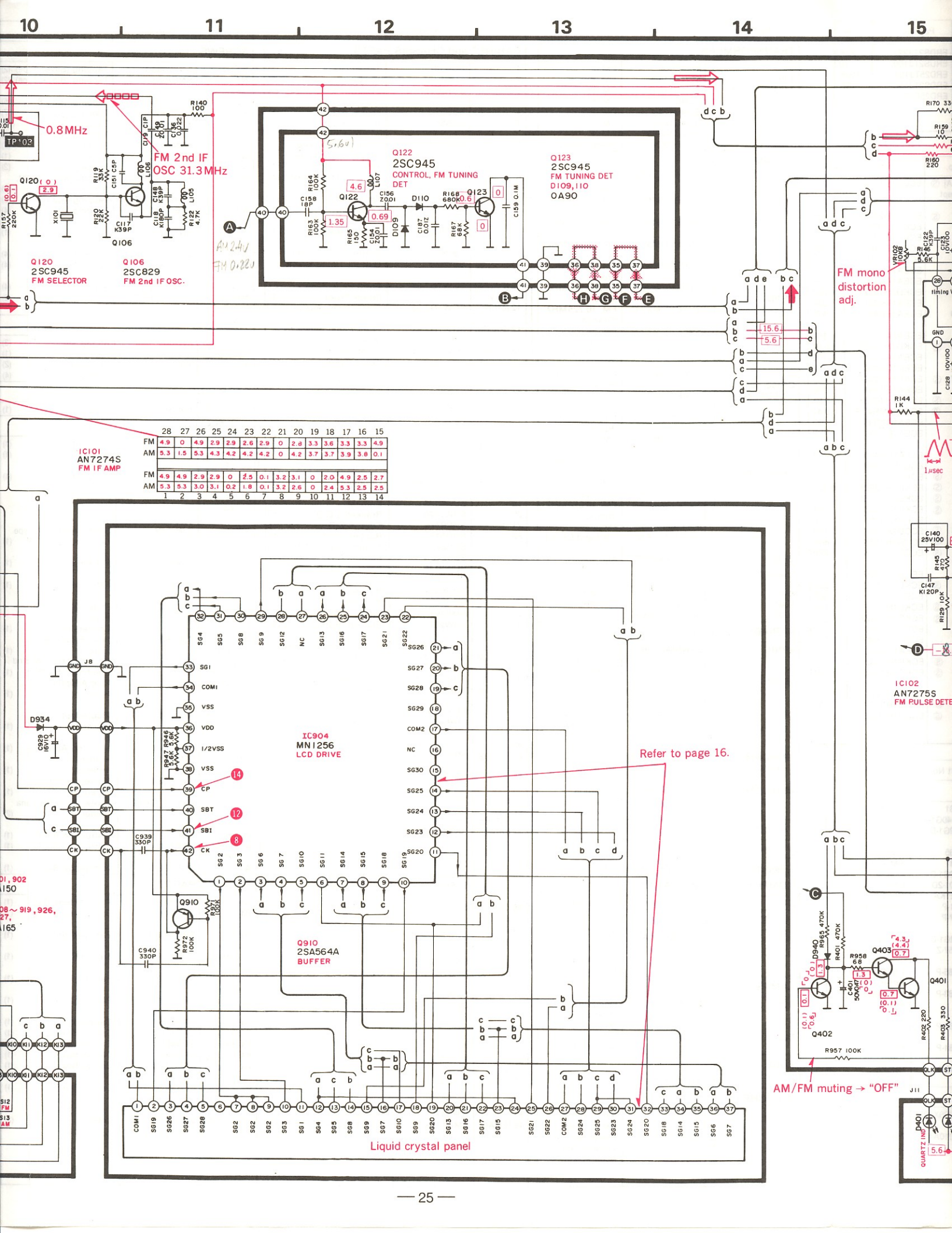
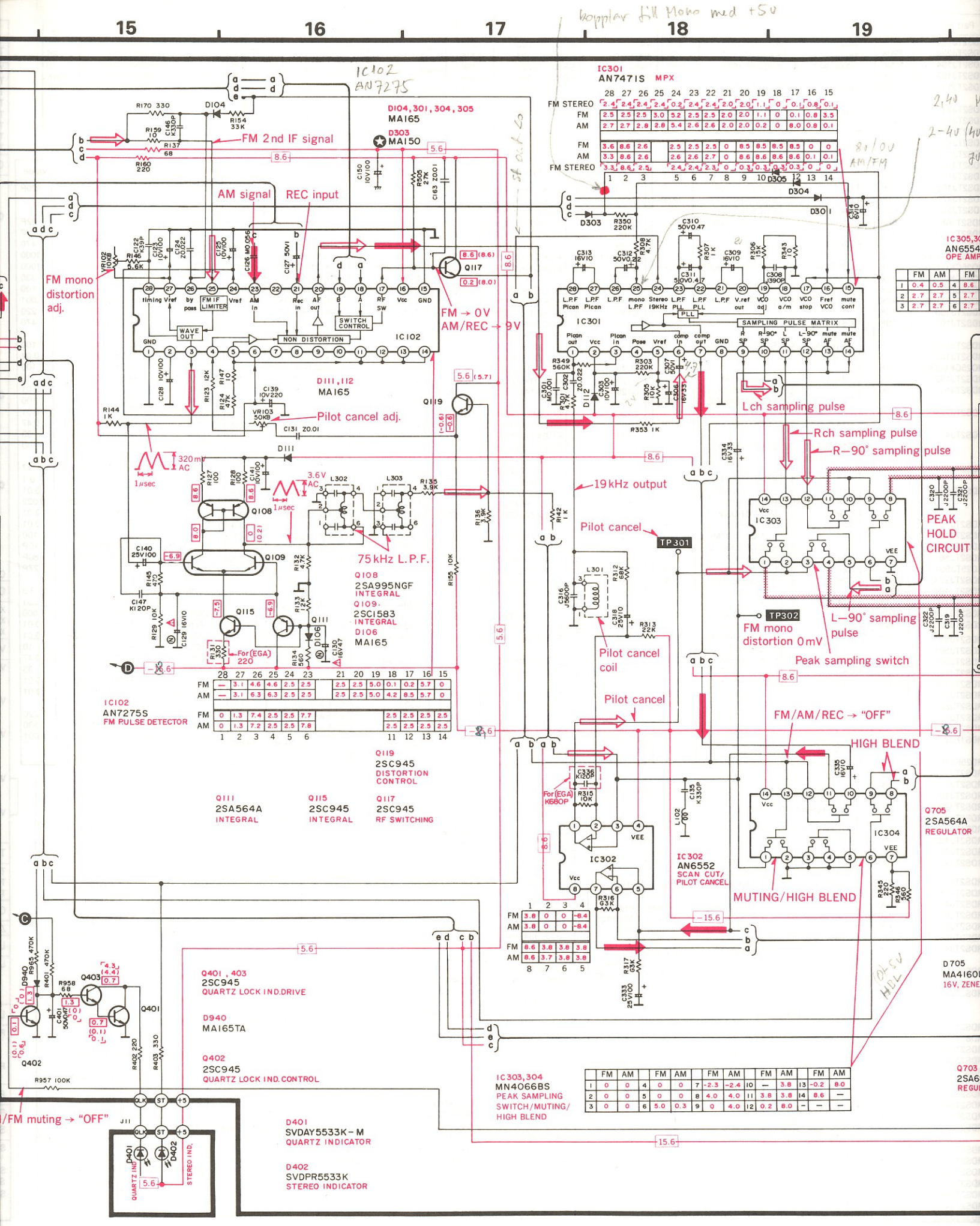


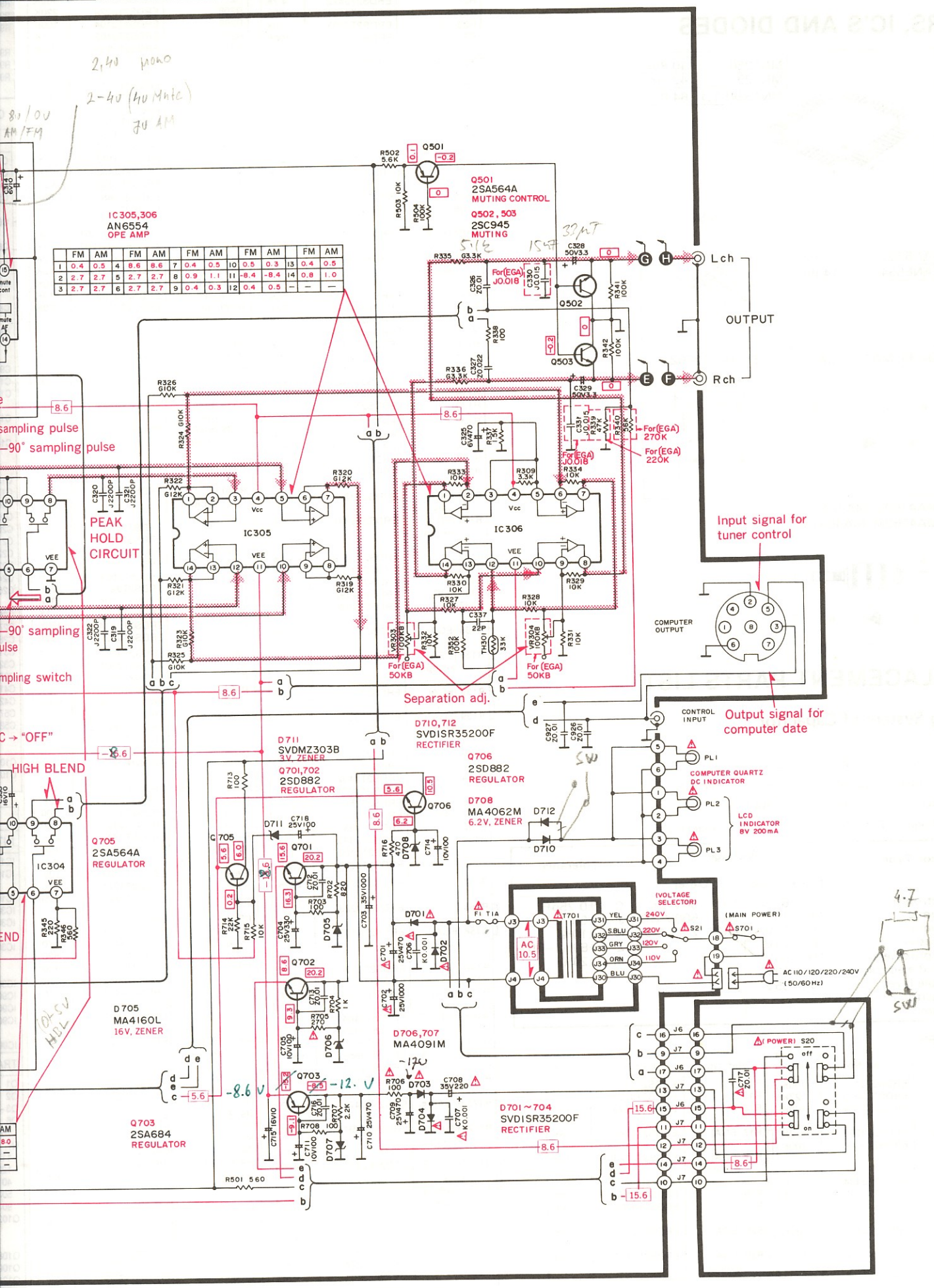
1
2
3
4
5
ST-G7
Supper narrow 0V, normal
D9
SVDSVC211
AFC
Q1
3SK74
FM RF AMP
D1~4
SVDSVC211
AFC
Q2
2SC1674
MIX
IC103
SVIM5215L
IF AMP.
FM antenna coil
FM signal
FM ANT
(75Ω)
FM IFT
For (EGA) only
AM RF coil
Q101
2SC945
FM IF
SELECTOR
FM OSC trimmer
FM OSC
FM OSC coil
D201
SVDKU1236Z
AFC
Q203
2SC1675
AM RF AMP
FM
87.50MHz
108.00 MHz
AM → 4.8V
IC905
AN6552
RF ATT
AM signal
AM ANT
AM LOOP ANT
FM/AM
FM RF 3V
Q3,4
2SC1675
FM OSC
Q5
2SC1675
BUFFER
Q6
2SA564A
SWITCHING
Q7, 8
2SC945
SWITCHING
AM antenna coil
AM IFT
Q121
2SC1675
D107,108
OA90
D947
MA150
Q201
2SC945
AM SELECTOR
AM antenna trimmer
Signal strength level adj.
Q901
2SK246
LOOP FILTER
Q902
2SA564A
LOOP FILTER
Q903
2SC945
LOOP FILTER
Q904,905
2SC945
FM IF
SELECTOR
H → 5V
L → 0V
2.9V
11.3V
FM
87.50MHz
108.00 MHz
1.7V
7.4V
AM
522kHz
1629kHz
1/32 → 1V, 1/33 → 3V
FM OSC (1/32 or 1/33)
3.5V
IC901
AN6823S
PRE SCALER
AM → 9.24V
IC902
MN1291
PLL CONTROLLER
For (EGA)
680K
D938
MA4043LTA
4.3V ZENER
Q202
2SA564A
SWITCHING
Q907, 908
2SC945
POWER ON-OFF DET
Back-up for me



	FM	AM	REC
A	0V	5.2V	0V
B	5.2V	5.2V	0V


10
11
12
13
14
15
0.8MHz
FM 2nd IF
OSC 31.3MHz
Q120
2SC945
FM SELECTOR
Q106
2SC829
FM 2nd IF OSC.
Q122
2SC945
CONTROL, FM TUNING DET
Q123
2SC945
FM TUNING DET
D109,110
0A90
FM mono distortion adj.
IC101
AN7274S
FM IF AMP
IC904
MN1256
LCD DRIVE
Q910
2SA564A
BUFFER
IC102
AN7275S
FM PULSE DETE
Refer to page 16.
AM/FM muting → "OFF"
Liquid crystal panel
Q401
Q402
Q403


15
16
17
18
19
IC102
AN7275
IC301
AN7471S MPX
D104, 301, 304, 305
MA165
D303
MA150
FM 2nd IF signal
AM signal
REC input
FM mono distortion adj.
FM → 0V
AM/REC → 9V
D111, 112
MA165
Pilot cancel adj.
320mV AC
1μsec
3.6V AC
1μsec
19kHz output
75kHz L.P.F.
Q108
2SA995NGF
INTEGRAL
Q109
2SC1583
INTEGRAL
D106
MA165
IC102
AN7275S
FM PULSE DETECTOR
Q111
2SA564A
INTEGRAL
Q115
2SC945
INTEGRAL
Q117
2SC945
RF SWITCHING
Q119
2SC945
DISTORTION CONTROL
L ch sampling pulse
R ch sampling pulse
R−90° sampling pulse
L−90° sampling pulse
Peak sampling switch
PEAK HOLD CIRCUIT
Pilot cancel
Pilot cancel coil
TP301
TP302
FM mono distortion 0mV
FM/AM/REC → "OFF"
HIGH BLEND
MUTING/HIGH BLEND
IC302
AN6552
SCAN CUT/ PILOT CANCEL
IC303, 304
MN4066BS
PEAK SAMPLING SWITCH/MUTING/ HIGH BLEND
Q401, 403
2SC945
QUARTZ LOCK IND.DRIVE
D940
MA165TA
Q402
2SC945
QUARTZ LOCK IND.CONTROL
D401
SVDAY5533K-M
QUARTZ INDICATOR
D402
SVDPR5533K
STEREO INDICATOR
Q705
2SA564A
REGULATOR
D705
MA4160
16V, ZENE
/FM muting → "OFF"



■ SCHEMA

(This schematic d
time with the de

* The part No. of t
in the schematic
No. with ✪ ma
ferent from the
when placing an o
the part No. in the

Note 1:

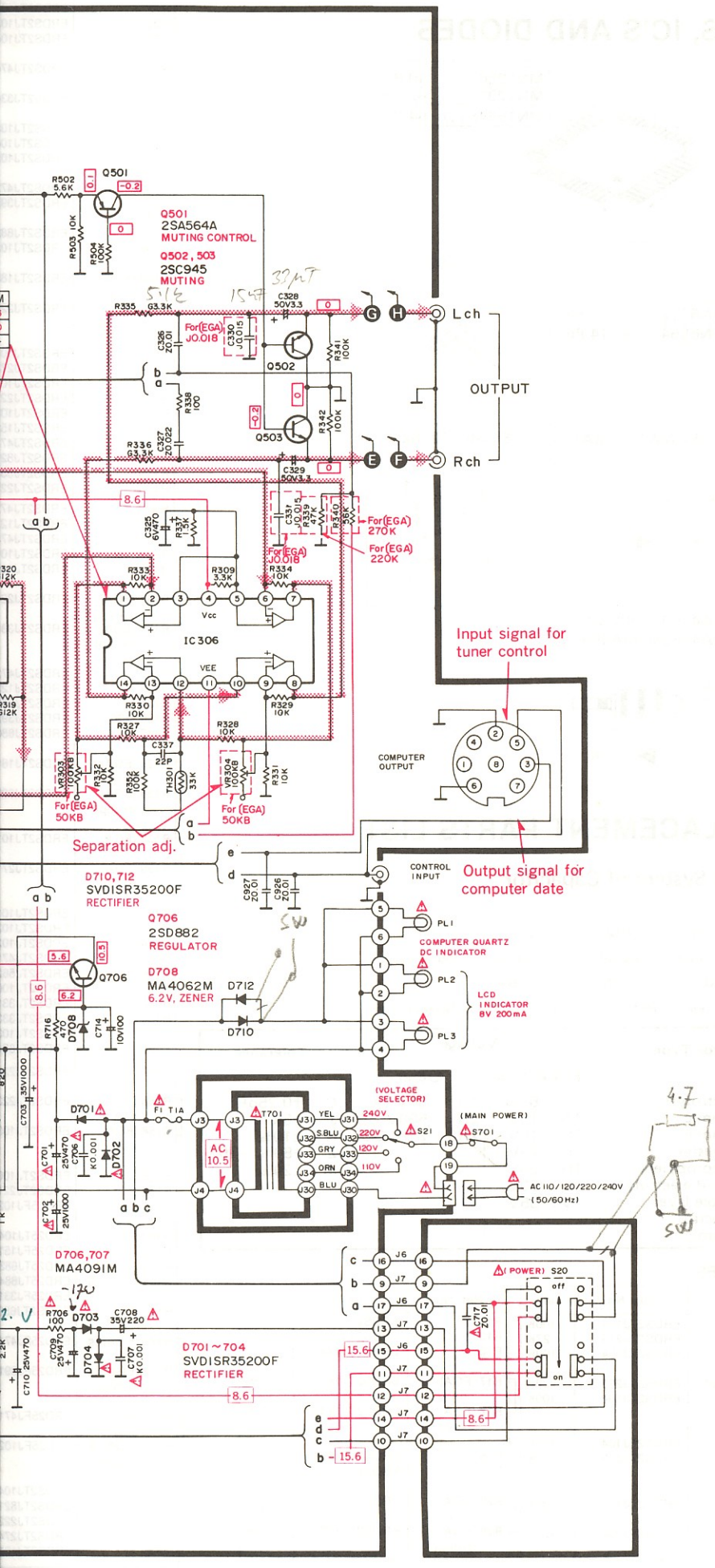
1. **S1 ~ S8** : Pres
2. **S9** : Tun
3. **S10** : Tun
4. **S11** : Mem
5. **S12** : FM
6. **S13** : AM
7. **S14** : Rec
8. **S15** : FM
9. **S16** : FM
10. **S17** : FM
11. **S18** : FM
12. **S20** : Pow
13. **S21** : Vol
14. **S701** : Mai
15. Indicated volta
the unit measu
(high-impedanc
Therefore, ther
values, dependi
DC circuit teste
* Figures in
signal (monau
* Figures in
stereo signal r
* Figures in (
signal recepti
* Figures in <
super narrow
16. FM sig
AM sig
AF sig
17. Positiv
18. Important safe
Components i
characteristics
any of these
specified parts.
19. The waveforms

Note 2:

● **Use of ceramic**

The ceramic filters
are available in fo
use the ceramics o
At repairing and r
diodes (D901, D9
used depending on

Color marking



■ SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology.)

* The part No. of transistors. IC and diodes mentioned in the schematic diagram stand for production part No. with ✪ mark, the production part No. are different from the replacement part No. Therefore, when placing an order for replacement part please use the part No. in the replacement part list.

Note 1:

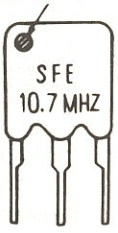
1. **S1 ~ S8** : Preset tuning switch. FM 1 ch ~ 8 ch, AM 9 ch ~ 16 ch.
2. **S9** : Tuning (up) switch. (manual ◄► auto) [up: tuning to higher frequency]
3. **S10** : Tuning (down) switch. (manual ◄► auto) [down: tuning to lower frequency]
4. **S11** : Memory switch. (manual ◄► auto)
5. **S12** : FM selector switch.
6. **S13** : AM selector switch.
7. **S14** : Recording level check switch.
8. **S15** : FM signal strength level call switch.
9. **S16** : FM IF band selector switch. (normal ◄► super narrow)
10. **S17** : FM mode switch. (auto ◄► mono)
11. **S18** : FM muting switch. (off ◄► scan level)
12. **S20** : Power switch in "on" position.
13. **S21** : Voltage selector switch in "220V" position. 110V ◄► 120V ◄► 220V ◄► 240V
14. **S701** : Main power switch in "on" position.
15. Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
    * Figures in ▭ stand for DC voltage in FM signal (monaural) reception mode.
    * Figures in ⌜ ⌟ stand for DC voltage in FM stereo signal reception mode.
    * Figures in ( ) stand for DC voltage in AM signal reception mode.
    * Figures in < > stand for DC voltage in FM-IF super narrow condition mode.
16. FM signal, AM signal, AF signal lines, FM OSC, AM OSC
17. ——— Positive voltage lines and negative voltage lines.
18. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
19. The waveforms ① ~ ⑲: Refer to page 17.

Note 2:

● Use of ceramic filters in pairs

The ceramic filters (CF101 ~ CF104) for FM-IF circuit are available in four ranks. For this machine, be sure to use the ceramics of the same rank in a pair.
At repairing and replacement, pay close attention to the diodes (D901, D902) for use as different diodes must be used depending on each rank of the ceramic filters.

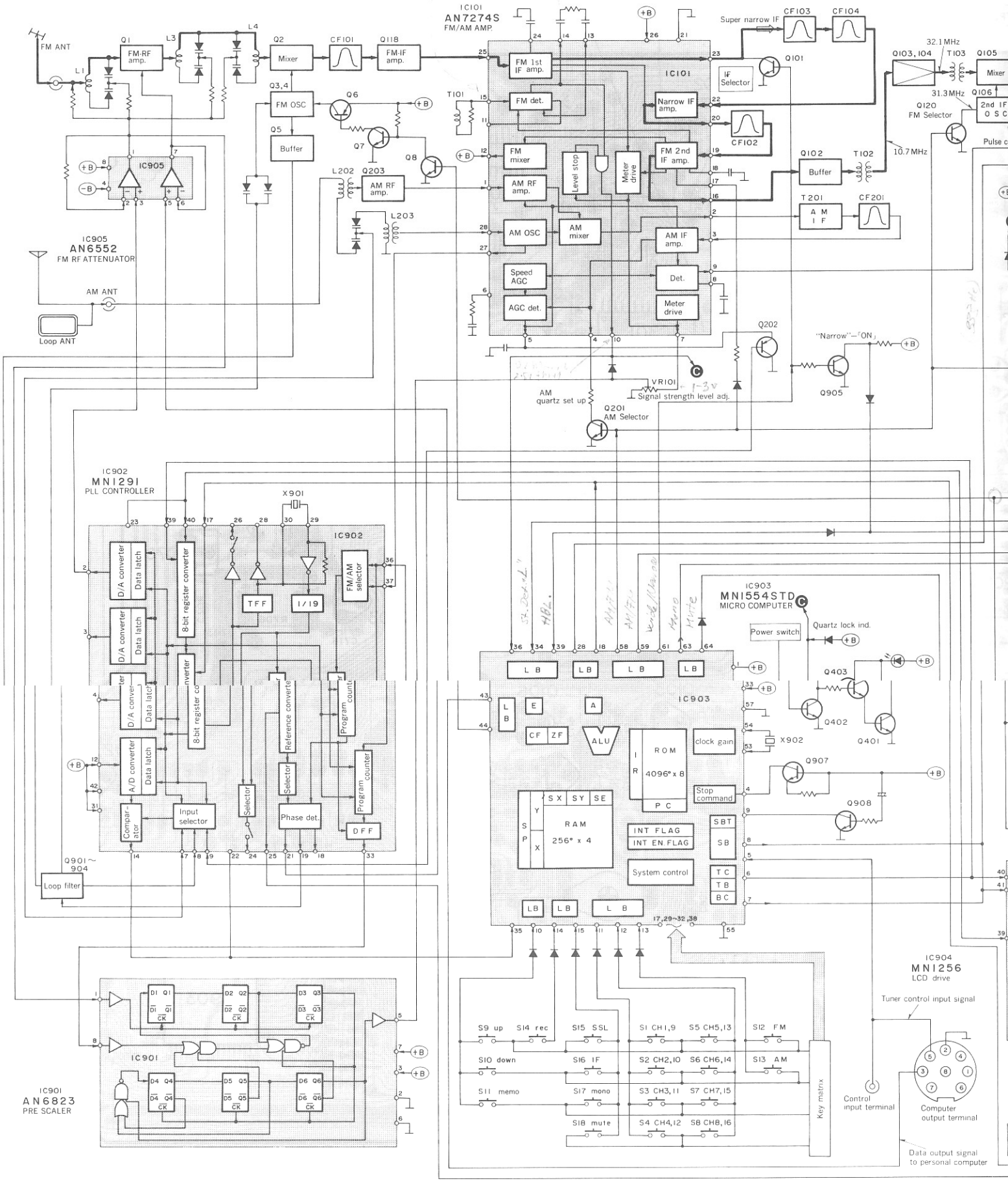
Color marking

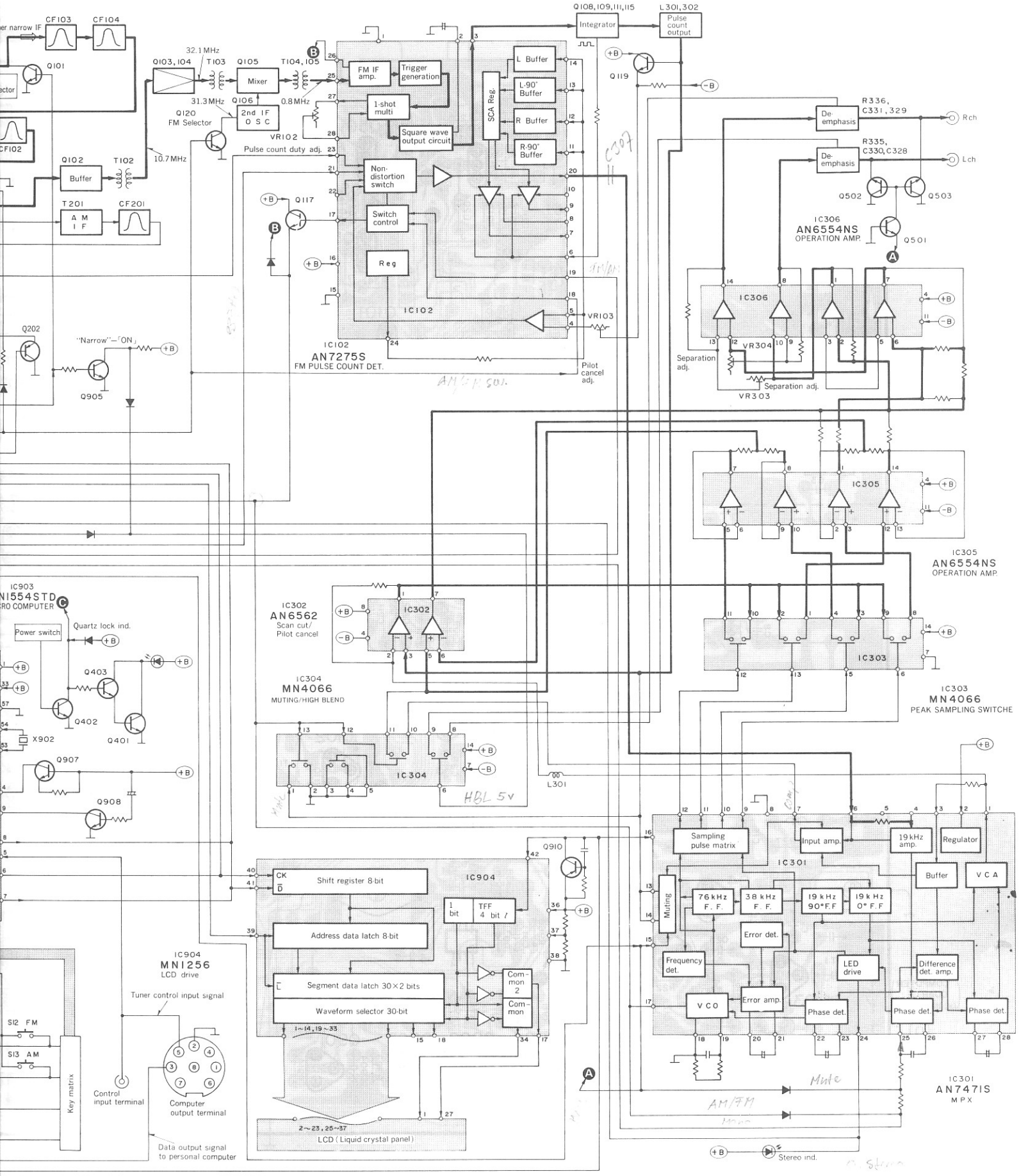


RANK (Color)	D901	D902	CENTER FREQUENCY
Black	×	○	10.65 MHz
Red	×	×	10.70 MHz
Blue	○	×	10.67 MHz
Orange	○	○	10.73 MHz

Note: ○ Mark Diode is used.
× Mark Diode is not used.

■ BLOCK DIAGRAM




CF103
CF104
Q101
32.1MHz
Q103,104
T103
Q105
Mixer
T104,105
31.3MHz
Q106
2nd IF OSC
0.8MHz
Q120
FM Selector
VR102
Pulse count duty adj.
10.7MHz
Q102
Buffer
T102
T201
AM IF
CF201
Q108,109,111,115
Integrator
L301,302
Pulse count output
Q119
FM IF amp.
Trigger generation
1-shot multi
Square wave output circuit
SCA Reg.
L Buffer
L-90° Buffer
R Buffer
R-90° Buffer
Non-distortion switch
Switch control
Reg
IC102
AN7275S
FM PULSE COUNT DET.
Pilot cancel adj.
VR103
Q117
Q202
"Narrow"—"ON"
Q905
R336, C331, 329
R335, C330, C328
De-emphasis
Rch
Lch
Q502
Q503
IC306
AN6554NS
OPERATION AMP.
Q501
VR304
Separation adj.
VR303
IC305
AN6554NS
OPERATION AMP.
IC302
AN6562
Scan cut/ Pilot cancel
IC304
MN4066
MUTING/HIGH BLEND
IC303
MN4066
PEAK SAMPLING SWITCHE
L301
IC903
NI554STD
RO COMPUTER
Power switch
Quartz lock ind.
Q403
Q402
Q401
X902
Q907
Q908
Q910
IC904
Shift register 8-bit
Address data latch 8-bit
Segment data latch 30×2 bits
Waveform selector 30-bit
1 bit TFF 4 bit
Common 2
Common
IC904
MN1256
LCD drive
Tuner control input signal
SI2 FM
SI3 AM
Key matrix
Control input terminal
Computer output terminal
Data output signal to personal computer
LCD (Liquid crystal panel)
Sampling pulse matrix
Input amp.
19kHz amp.
Regulator
IC301
Buffer
V C A
Muting
76kHz F. F.
38kHz F. F.
19kHz 90°F.F
19kHz 0° F.F
Error det.
Frequency det.
LED drive
Difference det. amp.
VCO
Error amp.
Phase det.
IC301
AN7471S
MPX
Mute
AM/FM
Stereo ind.