

ADDITIONAL

 PIONEER

Q07

Service Manual

ORDER NO.
ARP-492-0

FM/AM DIGITAL SYNTHESIZED TUNER

TX-301 HEZ

TX-905 HEZ

- TX-301/HEZ and TX-905/HEZ differ from TX-950/KU in style design.

	TX-950/KU	TX-301/HEZ, TX-905/HEZ
Power requirement	AC 120V only	AC220V (240V)*
Destination	U.S.A.	West Germany

* Change the primary wiring of the power transformer.

The basic performance of the model TX-301/HEZ and TX-905/HEZ are the same as the model TX-950/KU. Please refer to the TX-950/KU service manual (ARP-472) with the exception of this service manual. This additional service manual is applicable to the TX-301/HEZ and TX-905/HEZ.

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1. PARTS LIST

NOTES:

- When ordering resistors, first convert resistance values into code form as shown in the following examples.
Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).
 560Ω 56×10^1 561 RD $\frac{1}{4}$ PS 561 J
 $47k\Omega$ 47×10^3 473 RD $\frac{1}{4}$ PS 473 J
 0.5Ω 0R5 RN2H 0R5 K
 1Ω 010 RS1P 010 K
- Ex. 2* When there are 3 effective digits (such as in high precision metal film resistors).
 $5.62k\Omega$ 562×10^1 5621 RN $\frac{1}{4}$ SR 5621 F
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- For your Parts Stock Control, the fast moving items are indicated with the marks **★★** and **★**.
★★ GENERALLY MOVES FASTER THAN ★
 This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.

The TX-301/HEZ and TX-905/HEZ are the same as the TX-950/KU with the exception of the following sections.

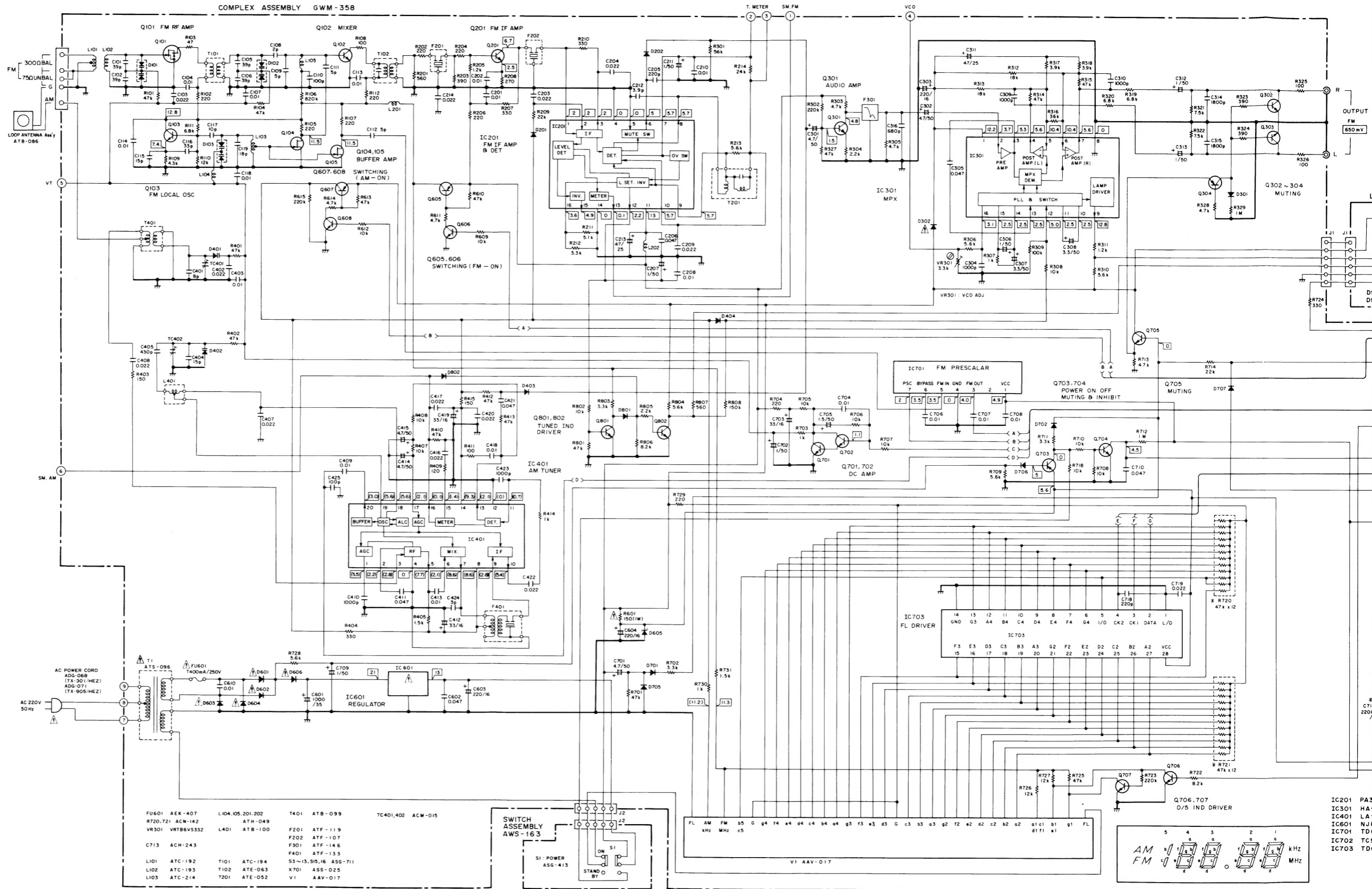
Mark	Symbol & Description	Part No.			Remarks
		TX-950/KU type	TX-301/HEZ type	TX-905/HEZ type	
Δ ★★	FU601 Fuse (0.8A/125V)	GWM-346	GWM-358	GWM-358	
	FU601 Fuse (T400mA/250V)	AEK-118	
Δ ★★	Front panel assembly	ANM-602	ANM-658	ANM-715	
	Bonnet case	ANE-475	ANE-474	ANE-475	
Δ ★★	Operating Instructions (English)	ARB-602	
	Operating Instructions (English, French, German, Italian)	...	ARE-106	ARE-101	
Δ ★★	Leg assembly	AEC-903	AEP-016	AEC-903	
	Packing case	AHE-332	AHE-356	AHE-342	
	AC power cord	ADG-073	ADG-068	ADG-071	

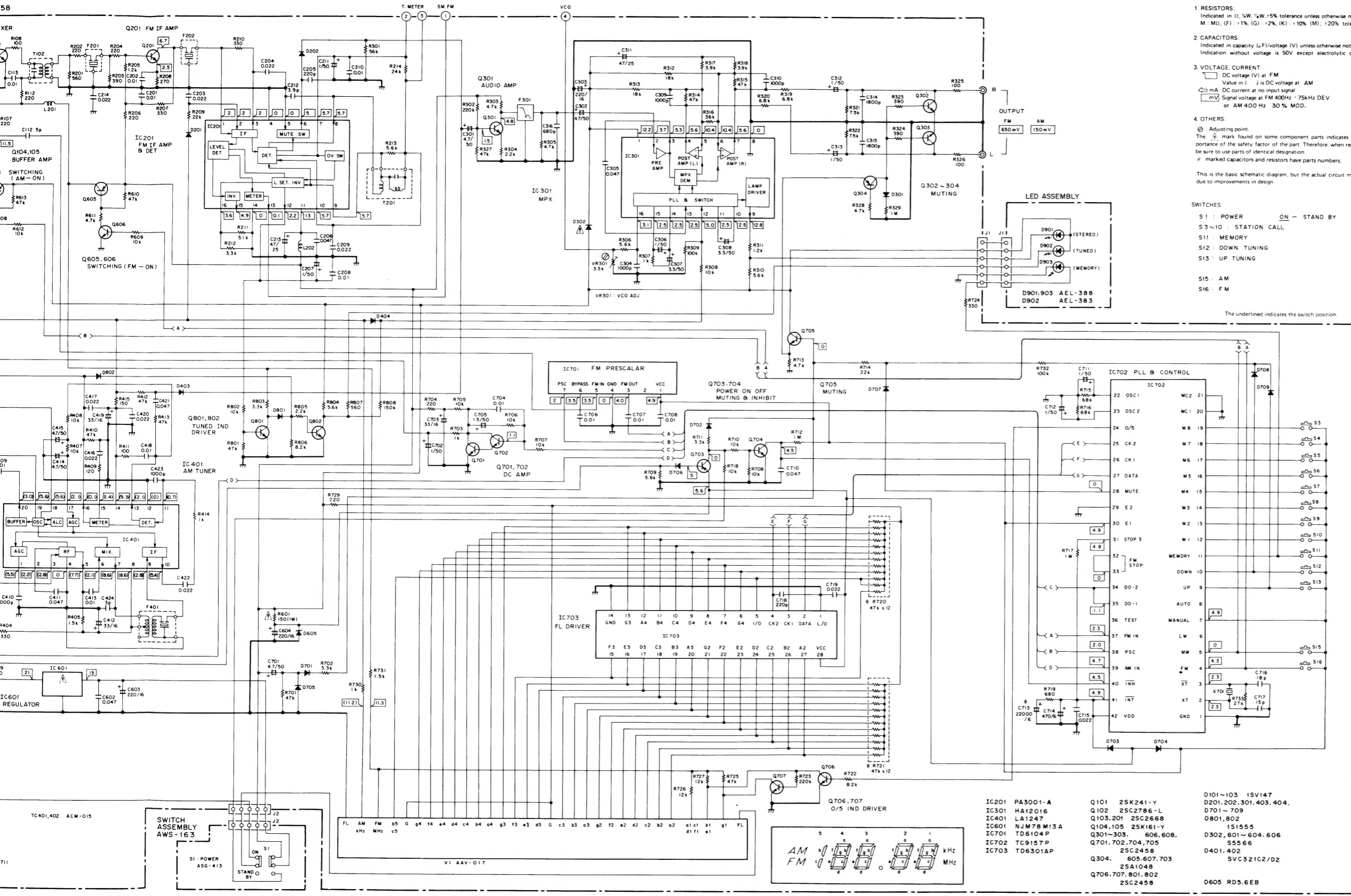
Complex Assembly (GWM-358)

The complex assembly GWM-358 (for HEZ type) is the same as the GWM-346 (for KU type) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		GWM-346	GWM-358	
Δ ★★	Q305, Q306	2SK246	...	
	T1 Power transformer	ATS-095	ATS-096	
Δ ★★	S17 Slide switch	ASH-034	...	
	C317, C318	CKDYB561K50	...	
Δ ★★	R616 Carbon composition	ACN-140	...	
	R330, R331 Terminal (ANTENNA)	RD1/8PM □□□J AKA-017	... AKA-018	

2. SCHEMATIC DIAGRAM



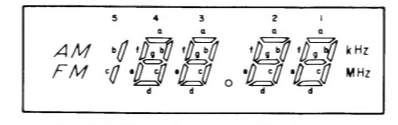


- 1. RESISTORS:
Indicated in Ω, kΩ, MΩ, 1/4W, 1/2W, 5% tolerance unless otherwise noted. k: kΩ, M: MΩ, (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% tolerance.
 - 2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted. p: pF. Indication without voltage is 50V except electrolytic capacitor.
 - 3. VOLTAGE CURRENT:
□ DC voltage (V) at FM
Value in () is DC voltage at AM
↪ mA DC current at no input signal
mV Signal voltage at FM 400Hz ± 75Hz DEV. or AM 400 Hz 30% MOD.
 - 4. OTHERS:
⊙ Adjusting point.
The ⚡ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
* marked capacitors and resistors have part numbers.
- This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.
- SWITCHES:
S1 : POWER ON — STAND BY
S3~10 : STATION CALL
S11 : MEMORY
S12 : DOWN TUNING
S13 : UP TUNING
S15 : AM
S16 : FM
- The underlined indicates the switch position.

IC201 PA3001-A
IC301 HA12016
IC401 LA1247
IC601 NJM78M13A
IC701 TD6104P
IC702 TC9157P
IC703 TD6301AP

Q101 2SK241-Y
Q102 2SC2786-L
Q103,201 2SC2668
Q104,105 2SK161-Y
Q301~303, 606, 608,
Q701,702,704,705 2SC2458
Q304, 605,607,703 2SA1048
Q706,707,801,802 2SC2458

D101~103 1SV147
D201,202,301,403,404, D701~709
D801,802
D901~903 1S1555
D302,601~604,606 55566
D401,402 SVC321C2/D2
D605 RD5.6EB



A

B

C

D

3. COMPLEX ASSEMBLY (GWM-358)

A

B

C

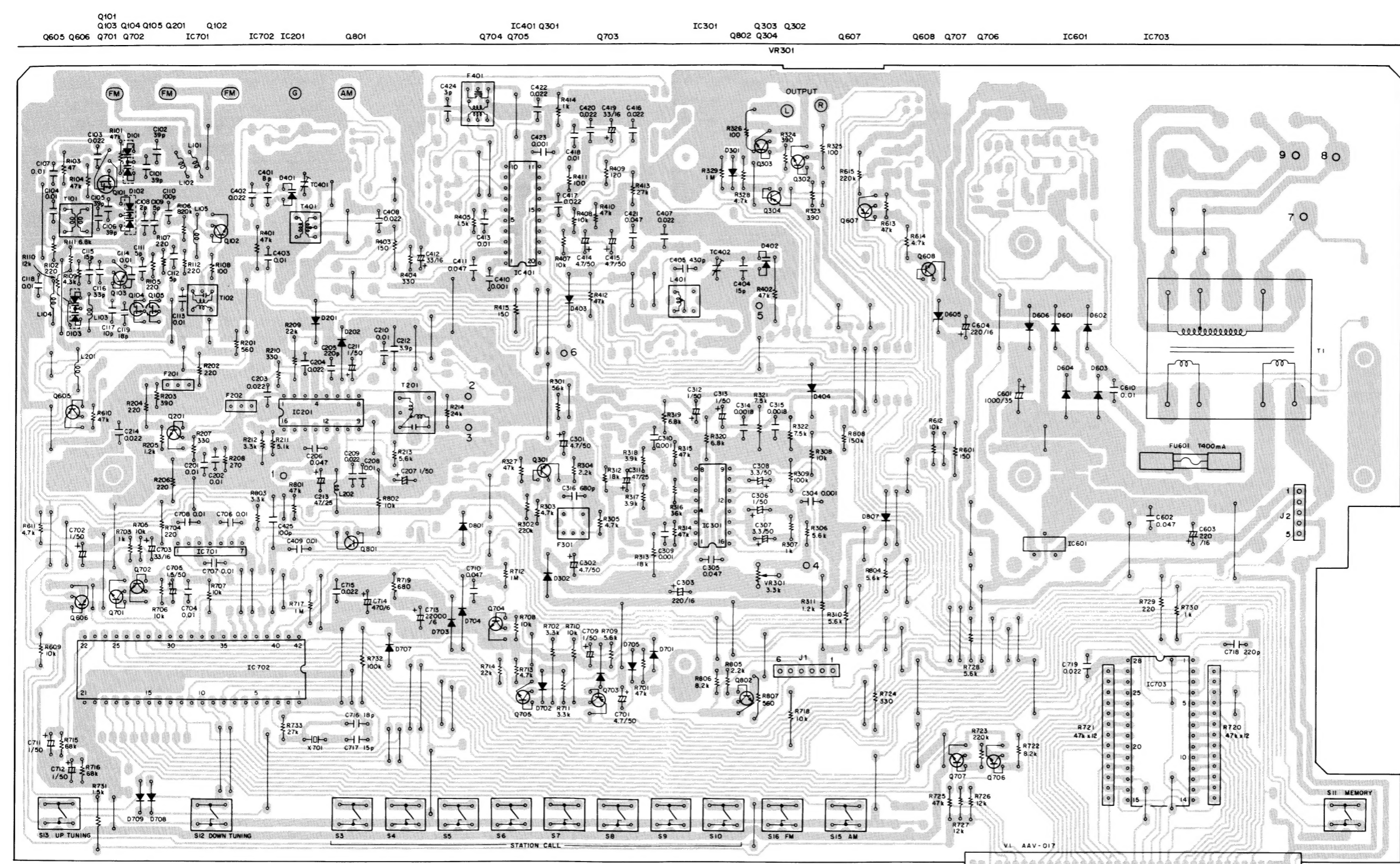
D

A

B

C

D



IC201 PA3001-A	Q101 2SK241-Y	Q304 .605, .607, .703	D101~103 1SV147	D401, 402 SVC321C2 / D2
IC301 HA12016	Q102 2SC2786-L	25A1048	D201, 202, 301, 403, 404.	D605 RD5.6EB
IC401 LA1247	Q103, 201 2SC2668		D701~709, 801, 802	
IC601 NJM78M13A	Q104, 105 2SK161-Y		151555	
IC701 TD6104P	Q301~303, 606, 608,	Q706, 707, 801, 802	D302, 601~604, 606	
IC702 TC9157P	Q701, 702, 704, 705	25C2458	55566	
IC703 TD6301AP	25C2458			