

CIRCUIT DESCRIPTION

Model No.: VS-XN
Brand: ORION

The device under application is a Video Cassette Recorder, which is operated by AC commercial power source(AC120V,60Hz).

The unit contains circuitry for the Power supply, Luminance, Chrominance, System control, Servo, Operation, Head amp, Audio, Tuner and RF converter and so on.

RF Converter output is output in US 3ch or 4ch and Emission frequency is as follows.

Emission Frequency; US 3ch Video carrier: 61.25MHz

Audio carrier: 65.75MHz

US 4ch Video carrier: 67.25MHz

Audio carrier: 71.75MHz

Type of RF Input and Output Connector;

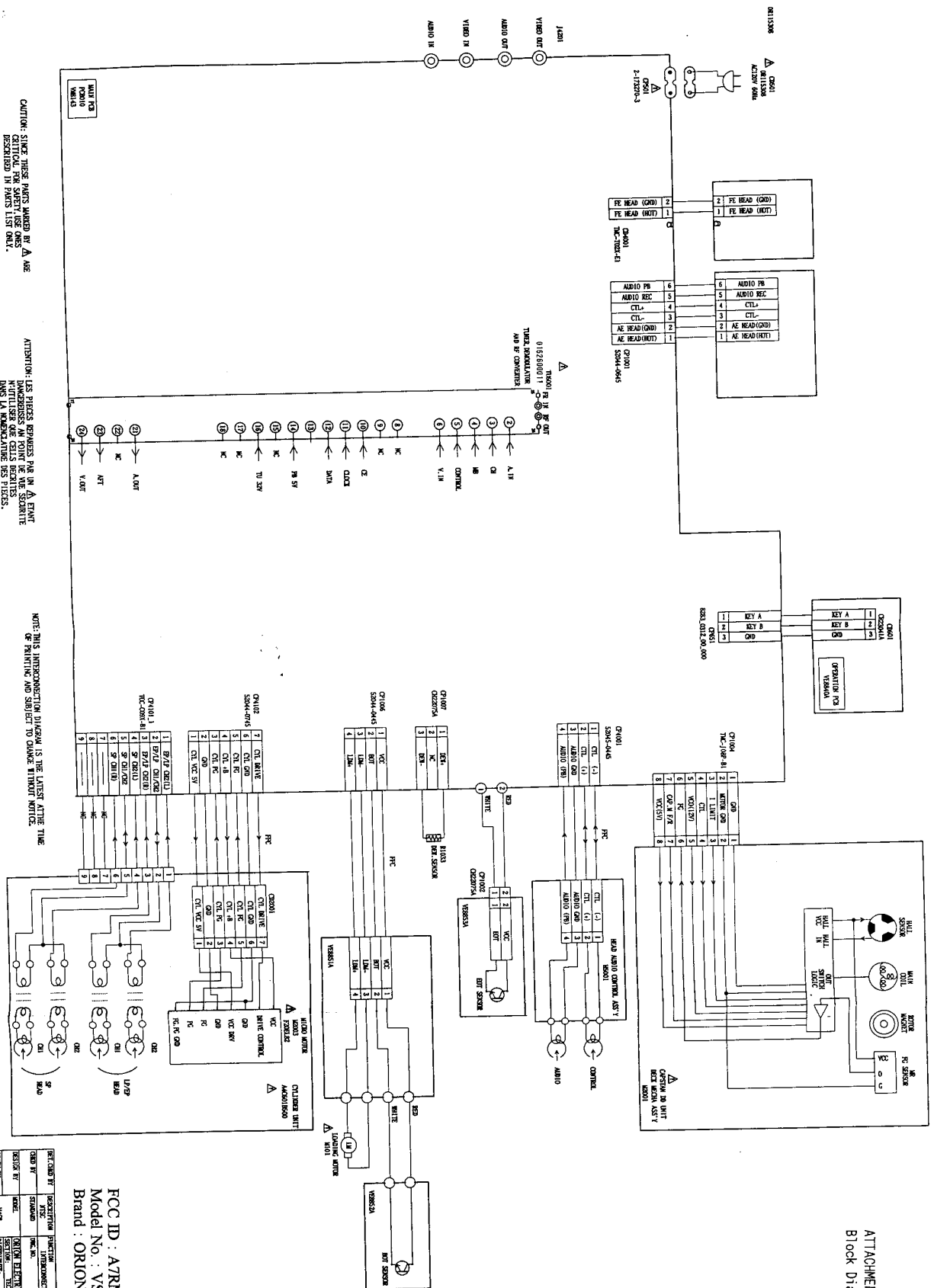
Type "F" Connector 75 ohm(Unbalanced)

The attached block diagram, ATTACHMENT L, describes the circuit functions.

FCC ID: A7RM4C8A

CIRCUIT DESCRIPTION
ATTACHMENT K

ATTACHMENT L Block Diagram



CAUTION: SINCE THESE PARTS WERE IN A AGE
REPAIR, THEY MAY BE DIFFERENT FROM
RECENTLY MANUFACTURED PARTS.

ATTENTION: LES PIÈCES DÉPOSÉES PAR UN ÉLÉMENT
REPARATEUR PEUVENT ÊTRE DIFFÉRENTES
DES PIÈCES RÉCENTEMENT FABRIQUÉES.

NOTE: THIS INTERCONNECTION DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SHOULD BE SHOWN TO SERVICE WITHOUT NOTICE.

REVISION	DESCRIPTION	DATE
1.0	INITIAL RELEASE	11/1/78
1.1	REVISION 1	11/1/78
1.2	REVISION 2	11/1/78
1.3	REVISION 3	11/1/78
1.4	REVISION 4	11/1/78
1.5	REVISION 5	11/1/78
1.6	REVISION 6	11/1/78
1.7	REVISION 7	11/1/78
1.8	REVISION 8	11/1/78
1.9	REVISION 9	11/1/78
1.10	REVISION 10	11/1/78

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ATTACHMENT M Circuit Diagram

- ▶ AUDIO SIGNAL (RE)
- ▶ AUDIO SIGNAL (PB)
- ▶ PLAYBACK COLOR SIGNAL
- ▶ PLAYBACK LUMINANCE SIGNAL
- ▶ RECORD COLOR SIGNAL
- ▶ RECORD LUMINANCE SIGNAL

REF. NO.	DESCRIPTION	FUNCTION	VAL. UNIT
1	RECORD BY	RECORD	1000
2	RECORD BY	RECORD	1000
3	RECORD BY	RECORD	1000
4	RECORD BY	RECORD	1000
5	RECORD BY	RECORD	1000
6	RECORD BY	RECORD	1000
7	RECORD BY	RECORD	1000
8	RECORD BY	RECORD	1000
9	RECORD BY	RECORD	1000
10	RECORD BY	RECORD	1000

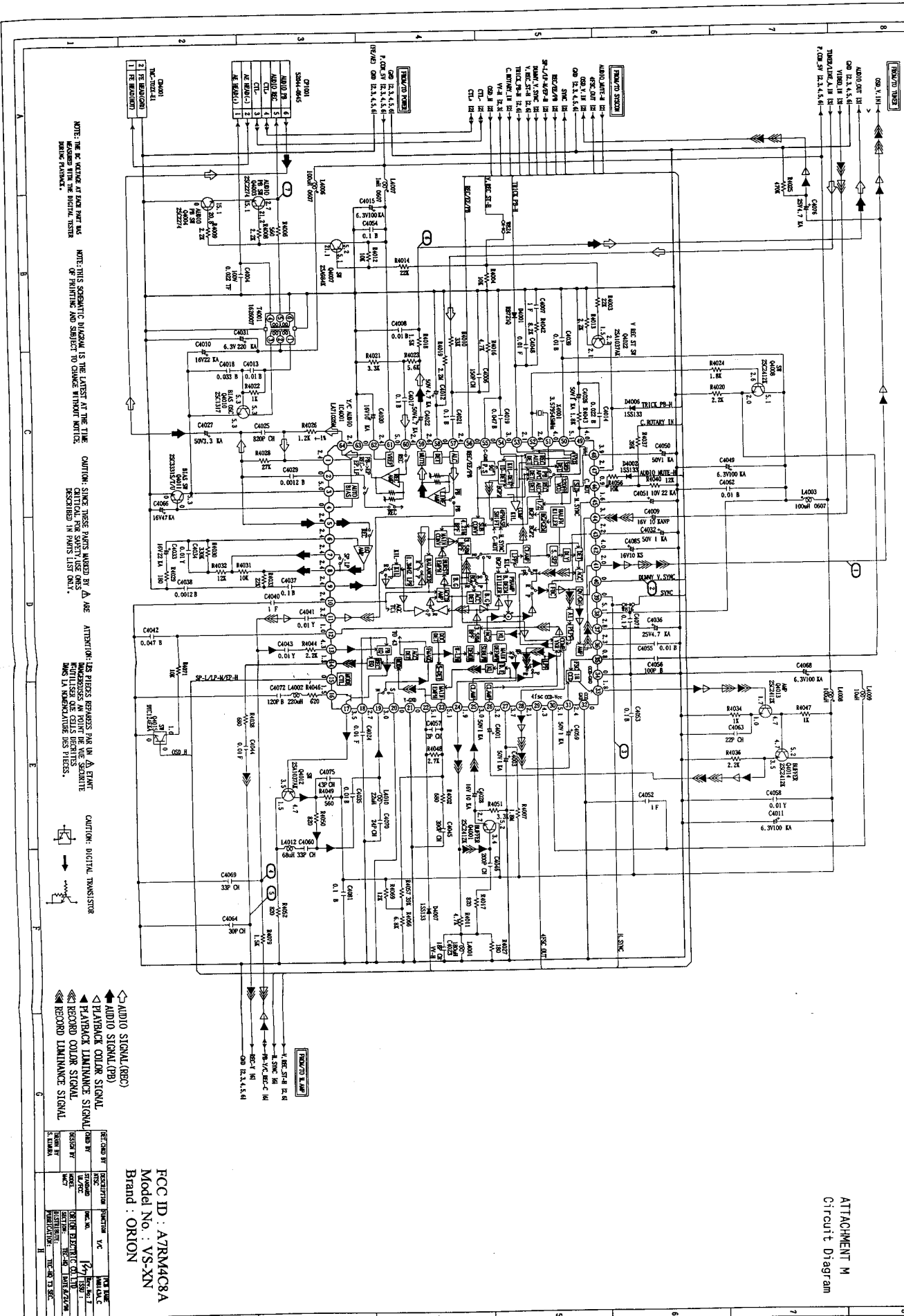
FCC ID: A7RM4C8A
Model No.: VS-XN
Brand: ORION

NOTE: THE IC MARKING AT EACH PART HAS
BEEN REPRODUCED WITH THE DIGITAL TESTER
MARKING PLAYSBACK.

CAUTION: SOME PARTS MARKED BY A Δ ARE
REPRODUCED IN THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

ATTENTION: LES PIÈCES MARQUÉES PAR UN Δ SONT
REPRODUCES EN CE SCHEMATIQUE
REPRODUCED IN THIS SCHEMATIC
AND LA MODIFICATION DES PIÈCES.

CAUTION: DIGITAL TRANSISTOR



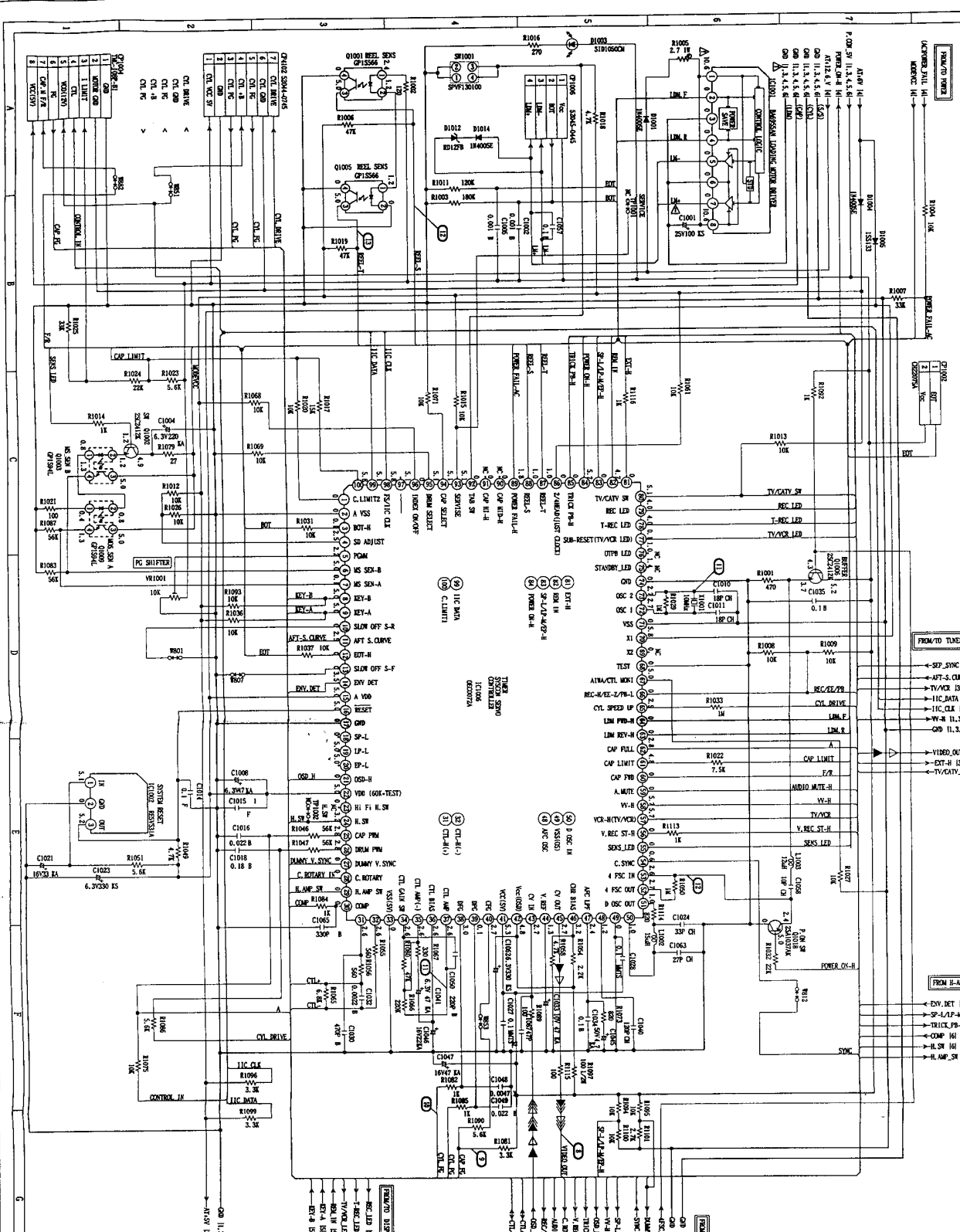
ATTENTION: LES PIÈCES MARQUÉES PAR UN A ÉTAIENT
NUMÉROUS À UN POINT DE VUE SÉRIÉ
N'UTILISER QUE CELLES DÉCRITES
DANS LA NOMÉCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY A ARE
CRITICAL FOR SAFETY, USE ONLY
THOSE DESCRIBED IN PARTS LIST ONLY.

NOTE: THE K-VALUE AT EACH PART WAS
MEASURED WITH THE DIGITAL TESTER
BASIC PLASMA.

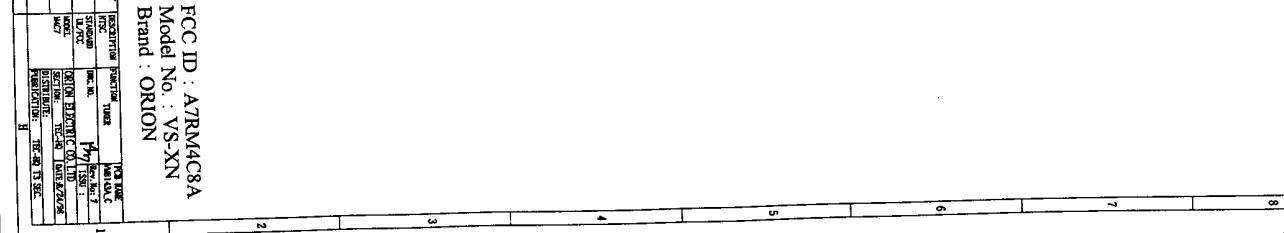
OF FEATURES AND SUBJECT TO CHANGE WITHOUT NOTICE.

▶ PLAYBACK COLOR SIGNAL
▶ RECORD LUMINANCE SIGNAL
▶ PLAYBACK LUMINANCE SIGNAL



FCC ID: A7RMAC8A
Model No.: VS-XN
Brand: ORION

REPAIR BY: [Signature]
DATE: [Date]
TESTED BY: [Signature]
DATE: [Date]



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Model No. : VS-XN
Brand : ORION

CAUTION: THE CONTAINED INFORMATION MAY BE UNCLASSIFIED, BUT THE INFORMATION IS NOT TO BE RELEASED TO THE PUBLIC WITHOUT THE WRITTEN AUTHORIZATION OF THE ISSUING OFFICE.

NOTE: THE DC VOLTAGE AT EACH POINT WAS MEASURED WITH THE METER. THE METER WAS USED TO MEASURE THE DC VOLTAGE.

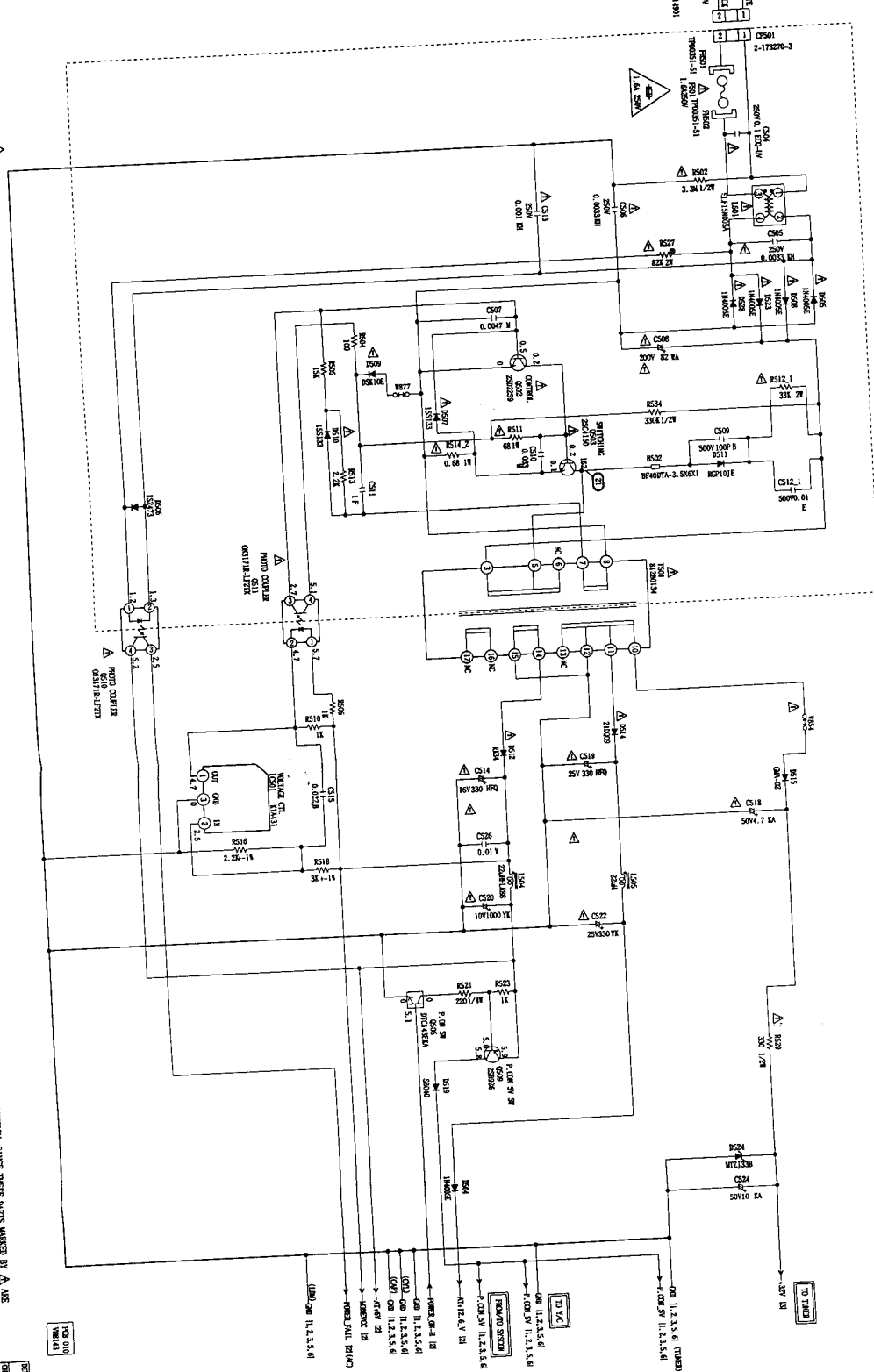
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

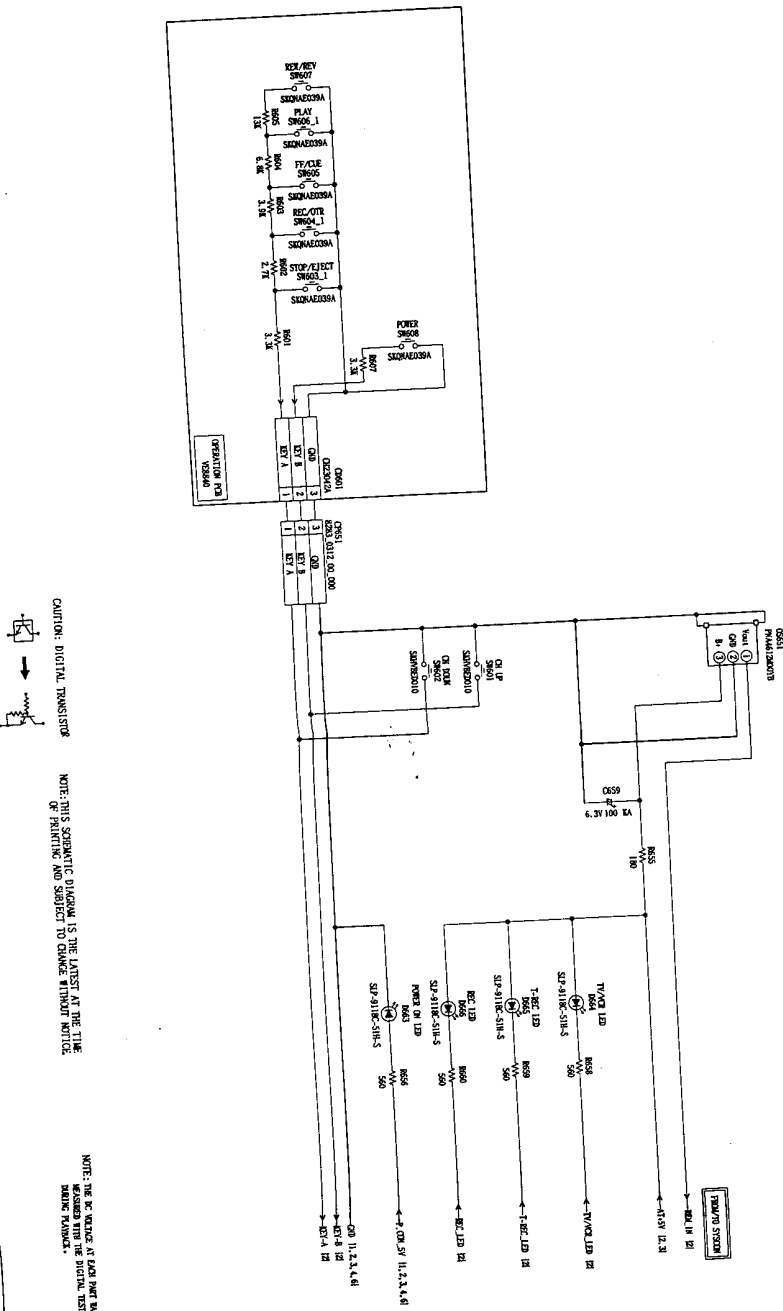
ATTENTION: LES PIÈCES REPÉRÉES PAR UN Δ ET/OU UN ○ DOIVENT ÊTRE REMPLACÉES PAR LE TYPE DÉSIGNÉ DANS LA LISTE DES PIÈCES.

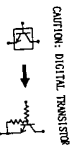
CAUTION: SINCE THESE PARTS MARKED BY Δ AND ○ ARE CRITICAL FOR SAFETY USE ONLY, DESCRIBED IN PARTS LIST ONLY.

REV.	DATE	DESCRIPTION	BY	CHK.
1	10/10/00	INITIAL DESIGN	W. J.	W. J.
2	10/10/00	REVISION	W. J.	W. J.
3	10/10/00	REVISION	W. J.	W. J.
4	10/10/00	REVISION	W. J.	W. J.
5	10/10/00	REVISION	W. J.	W. J.
6	10/10/00	REVISION	W. J.	W. J.
7	10/10/00	REVISION	W. J.	W. J.
8	10/10/00	REVISION	W. J.	W. J.

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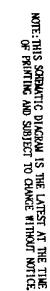
CAUTION: DIGITAL TRANSISTOR


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
 OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE AC VOLTAGE AT EACH PART HAS
 BEEN MEASURED WITH THE DIGITAL METER
 MODEL 1000A.

REV.	DATE	BY	DESCRIPTION
1	10/10/88	VS-XN	VS-XN
2	10/10/88	VS-XN	VS-XN
3	10/10/88	VS-XN	VS-XN
4	10/10/88	VS-XN	VS-XN
5	10/10/88	VS-XN	VS-XN
6	10/10/88	VS-XN	VS-XN
7	10/10/88	VS-XN	VS-XN
8	10/10/88	VS-XN	VS-XN
9	10/10/88	VS-XN	VS-XN
10	10/10/88	VS-XN	VS-XN

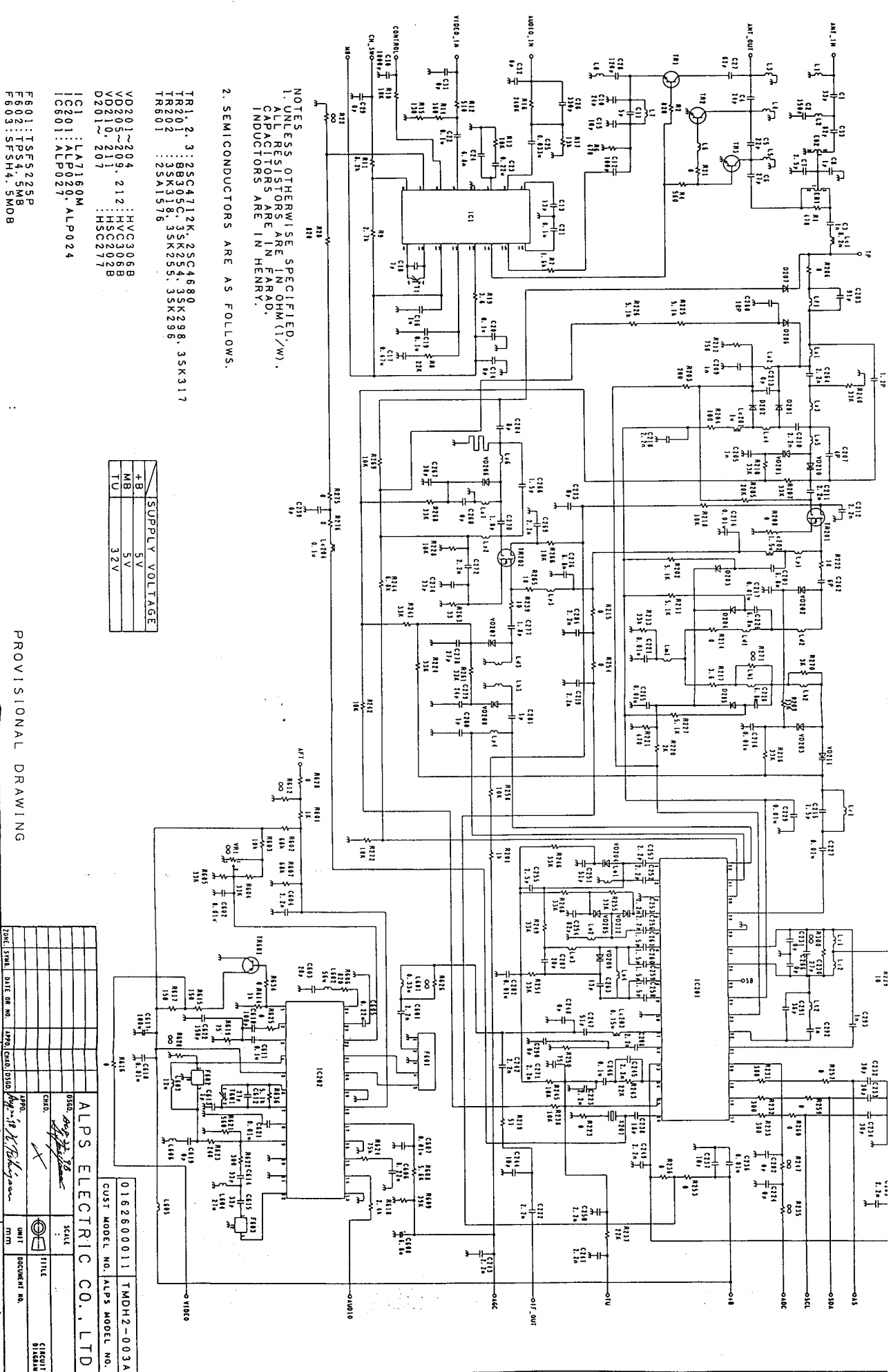
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- ▷ PLAYBACK COLOR SIGNAL
- ▲ PLAYBACK LUMINANCE SIGNAL
- ▶▶ RECORD COLOR SIGNAL
- ▶▶▶ RECORD LUMINANCE SIGNAL

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NOTES
1. UNLESS OTHERWISE SPECIFIED,
ALL RESISTORS ARE IN OHM (1/W).
CAPACITORS ARE IN FARAD.
INDUCTORS ARE IN HENRY.

2. SEMICONDUCTORS ARE AS FOLLOWS.

TR1, 2, 3: 2SC4712K, 2SC4680
TR2, 3: 8B305C, 3SK254, 3SK298, 3SK317
TR2, 3: 3SK318, 3SK255, 3SK296
TR6, 1: 2SA1576

VD2001~204: HVC3068
VD2002~205: HVC3068
VD2003~206: HVC3068
VD2004~207: HVC3068
D201~207: HSC277

IC1: LA7160M
IC201: ALP020, ALP024
IC601: ALP027

F801: T5C5225P
F802: T5C5225P
F803: SFS314, SMOB

SUPPLY VOLTAGE	
±B	5V
MB	5V
TU	32V

PROVISIONAL DRAWING

DATE	1970	DATE	1970	DATE	1970
TIME	1970	TIME	1970	TIME	1970
DATE	1970	DATE	1970	DATE	1970
TIME	1970	TIME	1970	TIME	1970
DATE	1970	DATE	1970	DATE	1970
TIME	1970	TIME	1970	TIME	1970

ALPS ELECTRIC CO., LTD

COST MODEL NO. ALPS MODEL NO.

0162600011 TMDH2-003A

SCALE

UNIT

DOCUMENT NO.

CIRCUIT

TUNER, DEMODULATOR AND RF CONVERTER CIRCUIT DIAGRAM