RESISTORS ARE IN OHMS. 1/2 WATT. 1
CAPACITANCE IS IN UF UNLESS OTHERWISE NOTED.

NOTE: DUCK SET POINT IS A SPECIAL FEATURE NOT USED IN STANDARD
TRANSMITTERS. ADJUSTING D5 HAS NO EFFECT IN STANDARD
TRANSMITTERS.
UNLESS OTHERWISE NOTED:
ALL CAPACITANCE IN MICROFARADS.
ALL RESISTANCE IN OHMS.
ALL RESISTORS 1/4 WATT, 5% TOL.
WIRING DIAGRAMS

IF ONLY ONE 50 VOLT POWER SUPPLY IS USED CONNECTIONS ARE MADE ONLY TO CR2

IF ONLY ONE 50 VOLT POWER SUPPLY IS USED IN THE CABINET, ONLY CR3 APPLIES

4. INDUCTANCE IN UH. 5. 5% RESISTORS MAY BE SUBSTITUTED FOR ANY RESISTOR UNLESS LABELED 1% ON THIS DOCUMENT.
3. CAPACITANCE IN UF. 2. RESISTANCE IN OHMS. 1. ALL RESISTORS ARE 1/4 WATT, 5%.

UNLESS OTHERWISE NOTED:

THIS DOCUMENT CONTAINS PROPRIETARY DATA OF HARRIS CORPORATION. NO DISCLOSURE, REPRODUCTION, OR USE OF ANY PART THEREOF MAY BE MADE EXCEPT BY WRITTEN PERMISSION.
17 WAY HB SHOWN
REMOVE ONE CABLE FOR 16 WAY SERVICE

RG 179B
RG 316

COAX FROM HEAD
COAX TO MODULE
COAX FROM HEAD

1-5/8 EIA

COAX TO MODULE

1

COAX TO LOAD FOR 2 WAY

2

COAX TO LOAD FOR 3 WAY

RG 179B
L=A

RG 316
L=B

NO. 839-7900-123

HARRIS CORPORATION
BROADCAST DIVISION
P.O. BOX 4290
QUINCY, ILLINOIS 62305

REV D

FILE

SCHEM. 2/3/4 WAY DIVIDER
HIGH / LOW BAND AURAL

THE DOCUMENT CONTAINS PROPRIETARY DATA OF HARRIS CORPORATION. NO DISCLOSURE, REPRODUCTION, OR USE OF ANY PART THEREOF MAY BE MADE EXCEPT BY WRITTEN PERMISSION.

DRAWN BY

DREW

CHECKED BY

CROCKETT

DATE

07-18-1994

SEC

38274

RGS NO.

839-7900-123
WIRING SHOWN ACCORDING TO NATIONAL ELECTRICAL CODES
ALL WIRE MUST BE SIZED PER LOCAL CODE.

WIRE SIZE

WIRE SIZE

WIRE SIZE

WIRE SIZE

NOTE: 1. ALL SUPPLIES MUST BE CONNECTED FOR THE CORRECT VOLTAGE
SEE 839-7900-134 PA CABINET AC DISTRIBUTION SCHEMATIC
2. 20% AURAL AND OR DRIVER OPTION

CONTROL CABINET

AURAL PA

CABINET

VISUAL PA

CABINET A

VISUAL PA

CABINET B

SEE 839-7900-141 FOR BREAKER SIZES

HARRIS
### Count of 50 Volt Power Supplies

<table>
<thead>
<tr>
<th>Power Level</th>
<th>% Aural</th>
<th>Harris Part #</th>
<th>No. of 50V PWR SUPP</th>
<th>Required PA Cabinet</th>
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</thead>
<tbody>
<tr>
<td>10KW</td>
<td>10/20</td>
<td>LB 994 9200 001</td>
<td>1</td>
<td>1</td>
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### The 3 Phase Line Currents at Full Load are:

<table>
<thead>
<tr>
<th>Volts</th>
<th>Single Supply</th>
<th>Dual Supply</th>
<th>Single Supply</th>
<th>Dual Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>208</td>
<td>39A</td>
<td>74A</td>
<td>50**</td>
<td>100**</td>
</tr>
<tr>
<td>240</td>
<td>34A</td>
<td>68A</td>
<td>45**</td>
<td>90**</td>
</tr>
<tr>
<td>360</td>
<td>23A</td>
<td>45A</td>
<td>30**</td>
<td>60**</td>
</tr>
<tr>
<td>380</td>
<td>22A</td>
<td>43A</td>
<td>30**</td>
<td>60**</td>
</tr>
<tr>
<td>415</td>
<td>20A</td>
<td>40A</td>
<td>30**</td>
<td>60**</td>
</tr>
</tbody>
</table>

### Notes:
- The above breaker ratings may be increased by 50% to 150 amps max in order to find a breaker with the correctly rated inrush current.
- ** The control cabinet uses a 10 amp breaker for 208-240, and a 10 amp breaker for 360.
- The 208-240 volt PA cabinet breakers must withstand an inrush current of 800 amps for 3 cycles per power supply, and the continuous currents rated at 130% to prevent nuisance trips. Cabinets with dual supplies multiply inrush and continuous currents by two.
- The 360-415 volt PA cabinet breakers must withstand an inrush current of 465 amps for 3 cycles per power supply, and the continuous currents rated at 130% to prevent nuisance trips. Cabinets with dual supplies multiply inrush and continuous currents by two.
- In all cases the main breaker must withstand the total combined inrush and continuous current of all the breakers.
- All wire sizes between the breaker panel and the transmitter must conform to local wiring codes or national electrical codes at a minimum.

### Harris Breaker Ratings

<table>
<thead>
<tr>
<th>Volts</th>
<th>Single Supply</th>
<th>Dual Supply</th>
<th>Single Supply</th>
<th>Dual Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>380</td>
<td>22A</td>
<td>43A</td>
<td>30**</td>
<td>60**</td>
</tr>
<tr>
<td>415</td>
<td>20A</td>
<td>40A</td>
<td>30**</td>
<td>60**</td>
</tr>
</tbody>
</table>

* # = PARALLEL, A = AURAL, V = VISUAL, LB = LOW BAND, HB = HIGH BAND
C1-C6 240,000 MICROFARD 60 VOLT
R1-R6 150 OHM, 20 WATT
This document contains proprietary information of Harris Corporation. No disclosure, reproduction, or use of any part thereof may be made except by written permission.
NOTES:
1. SPECIAL RF CONNECTOR AT AMPLIFIER
2. ALL OTHER CABLE CONNECTORS TYPE "N" PLUG
3. CABLE IMPEDANCE NOTED IN PARENTHESES
4. EQUAL LENGTH CABLES:
   - L1=L2=L3=L4=L5=L6
   - L7=L8=CONVENIENT HOOKUP LENGTH
   - T-N TEE
5. SOME 2 WAY COMBINERS
   - WILL USE ONLY 1 COMMON POINT CABLE
6. ON HIGH POWER VERSION
   - OUTPUT TEE IS "N-1 5/8-N"
COAX FROM HEAD
COAX FROM MODULE

COAX TO COMMON

COAX TEE-TEE

RG 393
RG 393

D/C

3 1/8 EIA

RG144

RG 393
R=50
1. Inductance in uH.
2. Capacitance in UF.
3. Resistors in 1/8 Watt, 1%.

Also:
- Resistors may be substituted for an equivalent unless labeled in this document.
- Capacitance in UF. for any resistor unless labeled.
RF INPUT E4
FORWARD VOLTAGE SAMPLE E2
RF OUTPUT E3
REFLECTED VOLTAGE SAMPLE E1

COUPLER IS PART OF PWB

12> COUPLER IS PART OF PWB

FORWARD VOLTAGE SAMPLE E2

E4
RF INPUT
E3
RF OUTPUT
E1
REFLECTED VOLTAGE SAMPLE

COUPLER IS PART OF PWB

4. INDUCTANCE IN UH. 5. RESISTANCE IN OHMS.
6. 1% RESISTORS MAY BE SUBSTITUTED FOR ANY RESISTOR UNLESS LABELED 1% ON THIS DOCUMENT.
7. CAPACITANCE IN UF. 8. SHEET NUMBER ZONE
9. CROCKETT
10. HARRIS CORPORATION
11. QUINCY, ILLINOIS 62305
12. P.O. BOX 4290
13. THIS DOCUMENT CONTAINS PROPRIETARY DATA OF HARRIS CORPORATION. NO DISCLOSURE, REPRODUCTION OR USE OF ANY PART THEREOF MAY BE MADE EXCEPT BY WRITTEN PERMISSION.
14. "IR CROCKETT DWG"
CALCULATED THROUGH PATH LENGTH

CH DIM A DIM B
HB 10.237 34.769

+/- 1/8"

CUTBACKS TO ALLOW FOR CONNECTOR LENGTH

CH DIM A DIM B
ALL 500 .499

CABLE STRIP LENGTH = CALCULATED DIM - CUTBACK DIM

RG 179B RG 316
L=A L=B
COAX FROM HEAD COAX TO MODULE

DIMENSIONS ARE IN INCHES

TOLERANCES:

± .030 .XX
± .015 .XXX
± 1 DEC

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DR. BY SEMERAD
ENG. CHK. NEAL
PROJ. ENG. NEAL
MFG. ENG.

TITLE
SCHENATIC 14 WAY HB VISUAL DIVIDER

SHEET NO. 1 OF 1

839-7900-715
THE PURPOSE OF THESE DRAWINGS IS TO UPDATE A/C WIRING CONNECTION INFORMATION. CONNECTIONS MAY DIFFER FROM THAT SHOWN ON THE PA CABINET WIRING DIAGRAMS. THESE DRAWINGS REFLECT THE USE OF THE RECENTLY DESIGNED DELTA-WYE POWER SUPPLIES, BOTH IN PAIRS, AND IN COMBINATION WITH THE PREVIOUS DESIGN.

*SITES WITH MIXED PART NUMBER POWER SUPPLIES

THE PURPOSE OF THESE DRAWINGS IS TO UPDATE A/C WIRING CONNECTION INFORMATION. CONNECTIONS MAY DIFFER FROM THAT SHOWN ON THE PA CABINET WIRING DIAGRAMS. THESE DRAWINGS REFLECT THE USE OF THE RECENTLY DESIGNED DELTA-WYE POWER SUPPLIES, BOTH IN PAIRS, AND IN COMBINATION WITH THE PREVIOUS DESIGN.

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THE PURPOSE OF THESE DRAWINGS IS TO UPDATE A/C WIRING CONNECTION INFORMATION. CONNECTIONS MAY DIFFER FROM THAT SHOWN ON THE PA CABINET WIRING DIAGRAMS. THESE DRAWINGS REFLECT THE USE OF THE RECENTLY DESIGNED DELTA-WYE POWER SUPPLIES, BOTH IN PAIRS, AND IN COMBINATION WITH THE PREVIOUS DESIGN.

USES 208V TAPS. LINE REGULATION RANGE TYPICAL +10/-15%. POWER FACTOR TYPICAL .87. FOR IMPROVED POWER FACTOR .92 OR BETTER, AND LINE REGULATION RANGE TYPICAL +10/-9%, RETAP POWER SUPPLY 11 SECONDARY FROM TAPS R1, R2, R3, TO T1, T2, T3. (SEE SCHEMATICS)

FOR IMPROVED POWER FACTOR, .92 OR BETTER, AND LINE REGULATION RANGE TYPICAL +10/-9%. USES 208V TAPS. LINE REGULATION RANGE TYPICAL +10/-15%. POWER FACTOR TYPICAL .87. FOR IMPROVED POWER FACTOR .92 OR BETTER, AND LINE REGULATION RANGE TYPICAL +10/-9%, RETAP POWER SUPPLY 11 SECONDARY FROM TAPS R1, R2, R3, TO T1, T2, T3. (SEE SCHEMATICS)

HARRIS CORPORATION
BROADCAST SYSTEMS
P.O. BOX 4290
QUINCY, ILLINOIS 62305

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**THE PURPOSE OF THESE DRAWINGS IS TO UPDATE A/C WIRING CONNECTION INFORMATION. CONNECTIONS MAY DIFFER FROM THAT SHOWN ON THE PA CABLE WIRING DIAGRAMS. THESE DRAWINGS REFLECT THE USE OF THE RECENTLY DESIGNED DELTA-WYE POWER SUPPLIES, BOTH IN PAIRS, AND IN COMBINATION WITH THE PREVIOUS DESIGN.**

*SITES WITH MIXED PART NUMBER POWER SUPPLIES.*

**380V 50HZ**

**416V 50HZ**
THE PURPOSE OF THESE DRAWINGS IS TO UPDATE A/C WIRING CONNECTION INFORMATION. CONNECTIONS MAY DIFFER FROM THAT SHOWN ON THE PA CABINET WIRING DIAGRAMS. THESE DRAWINGS REFLECT THE USE OF THE RECENTLY DESIGNED DELTA-WYE POWER SUPPLIES, BOTH IN PAIRS, AND IN COMBINATION WITH THE PREVIOUS DESIGN.

USES 380V TAPS. ALSO POWER SUPPLY T1 SECONDARY RETAPPED FROM R1, R2, R3, TO T1, T2, & T3 (SEE SCHEMATIC). POWER FACTOR 92 OR BETTER, LINE REGULATION +/- 10%.

416V 50Hz

USES 380V TAPS. ALSO POWER SUPPLY T1 SECONDARY RETAPPED FROM R1, R2, R3, TO T1, T2, & T3 (SEE SCHEMATIC). POWER FACTOR 92 OR BETTER, LINE REGULATION +/- 10%.

THE PURPOSE OF THESE DRAWINGS IS TO UPDATE A/C WIRING CONNECTION INFORMATION. CONNECTIONS MAY DIFFER FROM THAT SHOWN ON THE PA CABINET WIRING DIAGRAMS. THESE DRAWINGS REFLECT THE USE OF THE RECENTLY DESIGNED DELTA-WYE POWER SUPPLIES, BOTH IN PAIRS, AND IN COMBINATION WITH THE PREVIOUS DESIGN.
NATIONAL ELECTRICAL CODE WIRING SHOWN
ALL WIRE MUST BE SIZED PER LOCAL CODE

CONTROL CABINET
UNIT 1

PA CABINET A
UNIT 2

PA CABINET B
UNIT 3

PA CABINET C
UNIT 4

AC PWR DISTRIBUTION FOR DELTA
208-240VAC 3 PHASE 50/60 HZ

WARNING
ALL SUPPLIES MUST BE CONNECTED
FOR THE CORRECT VOLTAGE
SEE CONTROL CABINET AC DISTRIBUTION SCHEMATIC

100A BREAKERS MUST WITHSTAND AN INRUSH CURRENT OF 1500 AMPS FOR 3 CYCLES

OPTIONAL EQUIPMENT CHECK EQUIPMENT SPECIFICATIONS
FOR ACTUAL POWER REQUIREMENTS

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HARRIS CORPORATION
BRANDON DIVISION
4000 FALCON ROAD
MIDLAND, MICHIGAN

DRAWING
DATE
NAME

A
1-2-95
B
G YOCHUM

MAB 019-01

839-7994-091
- 150A circuit breaker must withstand a inrush current of 1500A.
- 450A circuit breaker must withstand an inrush current of 4500A.
- Customer supplied, existing on site, or contractor supplied equipment.
- Confirm and specify wye or delta before ordering surge suppressor from Harris. This equipment is often quoted on Harris’ proposals.
- Harris supplied.
- Connected by 2” copper strap to station ground system.
125A CIRCUIT BREAKER MUST WITHSTAND A INRUSH CURRENT OF 1250A.

CUSTOMER SUPPLIED, EXISTING ON SITE, OR CONTRACTOR SUPPLIED EQUIPMENT.

CONFIRM AND SPECIFY WYE OR DELTA BEFORE ORDERING SURGE SUPPRESSOR FROM HARRIS. THIS EQUIPMENT IS OFTEN QUOTED ON HARRIS' PROPOSALS, BUT THE DESCRIPTION SHOULD NOT BE USED FOR CONFIRMATION THAT WYE OR DELTA SERVICE IS ON SITE. THE STATION'S ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE PRESENCE OF WYE OR DELTA SERVICE.

CONNECTED BY 2" COPPER STRAP TO STATION GROUND SYSTEM. HARRIS SUPPLIED.
125A CIRCUIT BREAKER MUST WITHSTAND A INRUSH CURRENT OF 1250A.
400A CIRCUIT BREAKER MUST WITHSTAND A INRUSH CURRENT OF 400A.
CUSTOMER SupPLIED, EXISTING ON SITE, OR CONTRACTOR SupPLIED EQUIPMENT.
CONFIRM AND SPECIFY WYE OR DELTA BEFORE ORDERING SURGE SUPPRESSOR
FROM HARRIS. THIS EQUIPMENT IS OFTEN QUOTED ON HARRIS' PROPOSALS,
BUT THE DESIGNATION SHOULD NOT BE USED FOR CONFIRMATION THAT
THE STATION'S ELECTRICAL CONTRACTOR IS
RESPONSIBLE FOR CONFIRMING THE PRESENCE OF WYE OR DELTA SERVICE.
CONNECTED BY 2 COPPER STRAP TO STATION GROUND SYSTEM. HARRIS SupPLIED.
NOT REQUIRED IF SEPARATE 120V PANEL IS PROVIDED.
NOTES:

1. ALL CAPACITORS ARE IN µF UNLESS OTHERWISE SPECIFIED.
2. ALL RESISTORS ARE IN OHMS, 1/4 WATT 5%, UNLESS OTHERWISE SPECIFIED.
3. ALL DIODES ARE IN4148, UNLESS OTHERWISE SPECIFIED.
5. THIS IS A SYMBOL FOR FERRITE BEAD MOUNTED ON A COMPONENT LEAD.

TRANSISTOR LEGEND

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<tr>
<td>Q1-07</td>
<td>IRF610</td>
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<tr>
<td>OR</td>
<td>TIP112</td>
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<tr>
<td>010-015, 020</td>
<td>2N3904</td>
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<tr>
<td>09, 016-019</td>
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IC LEGEND

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<tbody>
<tr>
<td>U1</td>
<td>LM339  3  12</td>
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<td>U2</td>
<td>LM339  3  12</td>
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<td>U3</td>
<td>LM324  4  11</td>
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<td>U4</td>
<td>WCA255   –</td>
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<td>U5</td>
<td>LM324  4  11</td>
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SPARES

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<td>VOLTAGE SIGNAL</td>
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</tr>
<tr>
<td>CR42</td>
<td>AC COMMON</td>
</tr>
</tbody>
</table>

NOTE: CAD GENERATED, DO NOT CHANGE MANUALLY.
POWER ROOF VENTILATOR FOR DESCRIPTION REQUIREMENTS SEE SHEET 3, NOTE 6

AVERAGE VOLUME (VENTILATOR) 5300 C/F

AIR VOLUME (VENTILATOR) 5300 C/F

VENTILATOR (VENTILATOR) 5300 C/F

AVERAGE (VENTILATOR) 5300 C/F

VENTILATOR (VENTILATOR) 5300 C/F

AIR VOLUME (VENTILATOR) 5300 C/F

VENTILATOR (VENTILATOR) 5300 C/F

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AVERAGE (VENTILATOR) 5300 C/F

VENTILATOR (VENTILATOR) 5300 C/F

AVERAGE (VENTILATOR) 5300 C/F
TUBEAXIAL FAN ADAPTER PLATE (42" x 42" x 10 GA. GALV. STEEL MIN.)

FILTER ROOM

Access door

TOP VIEW

TUBEAXIAL FAN ADAPTER PLATE

72.8 NOM. 144.0

FILTER BANK

SEE NOTE 2

NOM. 1440

TUBEAXIAL FAN

SEE NOTE 5

AIRFLOW

720

WEATHER PROTECTIVE HOOD

W/BIRD SCREEN

APPROX. SIZE 48' x 48' x 48'

AIRFLOW

720 NOM. 1440

CEILING

AIRMASTER GRAVITY LOUVER

WR36

(38.75 SQ. WALL OPENING REO'D.)

C

NOTE: CHECK FOR WORST CASE SNOW DRIFTS TO INSURE THE BUILDING HAS ADEQUATE VENTILATION

SIDE VIEW

NOTICE: CHANGES TO FILTER/FAN/MOTOR CALLOUTS WILL EFFECT AIR SYSTEM AND WILL NEED TO BE RE-CALCULATED.
**NOTES**

1. Harmonic filter mounted in any position as req'd.
2. Line lengths between Visual PA outputs and Hybrid Combiner inputs must be equal. PA Cabinet "C" is 22.50 inches longer intentionally.
3. This is a typical layout based upon Harris selected and assumed vendors. These items are catalogued for operating frequency, physical, surgery, and flange locations will vary depending on vendor parts ordered and shipped.
4. Line lengths are to be measured and cut on site as req'd.
5. Dimensions in [ ] are in millimeters.

---

**NOTCH DIPLEXER**

- Asterisked items are not supplied with transmitter.

<table>
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<tr>
<th>QTY.</th>
<th>ITEM DESCRIPTION</th>
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<tbody>
<tr>
<td></td>
<td>RF LOAD 5 KW</td>
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<tr>
<td></td>
<td>RF LOAD 2.5 KW</td>
</tr>
<tr>
<td></td>
<td>RF LOAD 1 KW</td>
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<tr>
<td></td>
<td>VISUAL WATTMETER</td>
</tr>
<tr>
<td></td>
<td>AURAL WATTMETER</td>
</tr>
<tr>
<td></td>
<td>DIRECTIONAL COUPLER 1 5/16&quot;, 3 PORT</td>
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<tr>
<td></td>
<td>DIRECTIONAL COUPLER 7/8&quot; 1 PORT</td>
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<tr>
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<td>VIS HYBRID COMBINER</td>
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<td>DIRECTIONAL COUPLER 1 5/8&quot;, 1 PORT</td>
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<td>DIRECTIONAL COUPLER 7/8&quot;, 2 PORT</td>
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<td>ELBOW, 90° 3/16&quot;</td>
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<tr>
<td></td>
<td>COUPLING ASS'Y, 1 5/8&quot;</td>
</tr>
<tr>
<td></td>
<td>COUPLING ASS'Y, 3 1/8&quot;</td>
</tr>
<tr>
<td></td>
<td>ELBOW, 90° 1 1/8&quot;</td>
</tr>
<tr>
<td></td>
<td>REDUCER, 3 1/8&quot; TO 1 5/8&quot;</td>
</tr>
</tbody>
</table>

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**DIMENSIONS**

- Scale: 1 / 24 = 1/2" (5/32"")

---

**SCALE**

- 0 1 2 3 4 5 6 7 8 9 10 FEET

---

**TABLE**

<table>
<thead>
<tr>
<th>ZONE</th>
<th>CH</th>
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<th>STTW</th>
<th>END</th>
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**DESCRIPTION**

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11 ti 11 ui 8

POWER ROOF VENTILATION
FOR DESCRIPTION REQUIREMENTS
SEE SHEET 6, NOTE 6

ROOF LINE
(APPROX. 48" x 48" OPENING REQUIRED)

AIR VOLUME
FT³/Min (MN)

AVERAGE
STACK RISE
OVER AMBIENT • C

HEAT LOADS
Watts (BTU)

NORMAL
PRESSURE
INCHES OF WATER

NORMAL
NOISE LEVEL
40 DBA 60 HZ

NORMAL
BLOWER
CURRENT 2 230 VAC

CAB 1
EXCITER CTRL INTAKE 500 (14.2)

CAB 2
PA INTAKE 3500 (99.1)

CAB 3
PA INTAKE 3500 (99.1)

CAB 1
EXCITER CTRL EXHAUST 500 (14.2) 5 1000 (3413) .4 AMP

CAB 2
PA EXHAUST 3300 (93.4)

Transmitter Radiation 420 (1437)

Transmitter Convection 106 (362)

Front Module Leaks (PA’s) 400 (1365) 10 2273 (7757)

Transmitter Totals 7899 (2632) 33,800 (115,359)

Reading is for combined 20kW cabinets with all fans running.

Data shown is typical for a 60 Hz transmitter @ 230 vac input power and at standard conditions (20˚C and sea level).

Noise measurements made on a weighted scale 3 feet from floor and 3 feet from surface of transmitter being measured. Readings are for individual cabinets.

Typical pressure measure at the fan output plenum pressure tap location.

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7. This typical transmitter system has been sized to slightly pressurize the room. Additional cooling is required for the transmitter equipment to meet the heat dissipation of the equipment. Cooling building loads. Consult Harris or a qualified air conditioning/ventilation consultant for assistance.

6. The exhaust blower (maximum air volume 2440 CFM; 120 RPM) is sized for 3000 CFM at 1/2" water. The actual exhaust flow after construction of the exhaust system should be adjusted for a flow of 2200 CFM and a 1/2" to 2" water at the exhaust stacks of the transmitter.

5. The intake blower (maximum air volume 9400 CFM; 1381 RPM) is sized for 9440 CFM at 125' water. The actual desired make-up air requirement is 8000 CFM, after the system is constructed the blower can be varied in speed to meet the actual system requirements.

4. The filter room can be equipped with a filter box. (150-175% of CFM) to monitor the filter drop or the cleanliness of the air. This sizing can be used for determining filter changes.

3. Inlet filter bank at 8000 CFM flow rate has a face velocity of approximately 166 FPM. The typical pressure drop for a clean filter is approximately 1/2" water. The filters should be changed at this point or sooner.

2. Air filters - 120 MERV efficient; filter size 24" x 24" x 12" deep with six ports. Pre-filter: American filter company - American 75 MERV efficient; filter size 24" x 24" x 12" deep with six ports. Fits into universal holding frame.

1. The weather hood is galvanized steel with automatic backdraft dampers (Airmaster model WR30) and a birdscreen over the roof. The wind velocity and wind patterns should be considered. The weather hood will be the intake system is mounted on. If possible, do not place the intake or exhaust ports on the side nearest the prevailing wind.
HARMONIC FILTER
(HARMONIC FILTER IS SEPARATE ITEM TO
BE MOUNTED AT INPUT OR OUTPUT OF FILTER)
10'-10" (3306.99 mm)

DIM B'

CHAN 7 - 13 48 (1219.2)

9'-8"0 [2953.22 mm]
10'-10"0 [3306.09 mm]

CONTROL CABINET PA CABINET PA CABINET

CONSTANT IMPEDANCE BANDPASS FILTER MAYBE CEILING/FLOOR MOUNTED. ESTIMATED HANGING WEIGHT 625 LBS.

CHANNEL 9 MF SYSTEM SHOWN

THIS IS A TYPICAL LAYOUT BASED UPON HARRIS SELECTED AND ASSUMED VENDORS.

THESE ITEMS ARE CHANNELIZED FOR OPERATING FREQUENCY. PHYSICAL OUTLINE / FLANGE
WILL VARY DEPENDING ON VENDOR PARTS ORDERED AND SHIPPED.

LINE LENGTHS ARE TO BE MEASURED AND CUT ON SITE AS REQ.

DIMENSIONS IN [ ] ARE IN MILLIMETERS.

1-5/8" FLANGED TO ANTENNA

1-5/8" FLANGED TO UNFLANGED ADAPTER
300 HYBRID
BIRD INSTALL 1/2" FLAP LOAD
DIR COUPLER 1-5/8" 2 PORT
DIR COUPLER 1-5/8" 1 PORT
DIR COUPLER 1-5/8" 3 PORT
HIGH GAIN 1-5/8" TO 3 1/8"
"W 10" 1-5/8" ADAPTOR
ELEVATE BT 1-5/8
COUPLING ASSY 1/2"
LINE ASSY 1-5/8"
1 1/2" HELIAX CABLE
HARMONIC FIL (CHAN 2,3)
CONSTANT IMPEDANCE BANDPASS FILTER

QTY | ITEM | DESCRIPTION
--- | --- | ---
3 | 10 | 1-5/8" FLANGED TO UNFLANGED ADAPTER
14 | 14 | 300 HYBRID
1 | 13 | BIRD INSTALL 1/2" FLAP LOAD
2 | 12 | DIR COUPLER 1-5/8" 2 PORT
2 | 11 | DIR COUPLER 1-5/8" 1 PORT
1 | 10 | DIR COUPLER 1-5/8" 3 PORT
3 | 9 | 1-5/8" 3 PORT REDUCER
7 | 7 | "W 10" 1-5/8" ADAPTOR
4 | 4 | ELEVATE BT 1-5/8
5 | 5 | COUPLING ASSY 1/2"
3 | 3 | 1/2" HELIAX CABLE
1 | 1 | CONSTANT IMPEDANCE BANDPASS FILTER

TOLERANCES UNLESS NOTED
XXX ± 0.300
YYY ± 0.015
Zzz ± 0.005
ANGLES ± 1 DEG

ALL DIMENSION IN INCHES UNLESS OTHERWISE NOTED

MUST COMPLY WITH WORKMANSHIP STANDARDS SPEC 817-1152-001

HARRIS CORPORATION
BROADCAST COMMUNICATIONS
P.O. BOX 4290
QUINCY, ILLINOIS 62305

DRAWN BY
K. BUNTE
DATE
11 DEC 97
ENG CHK
C. NEAL
MFG ENG
D. MYERS

REVISE QTY'S ON CHART

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REVISE QTY'S ON CHART