

XMR TYPICAL WIRING REFERENCE DIAGRAM
RECEIVER ONLY SYSTEM

CONTROL THROUGH THIRD PARTY
 CABIN ENTERTAINMENT MANG. SYSTEM (CEMS)

XMR RECEIVER (1, 2, 4 OR 8 CHANNEL)
 P/N: XMR(100/200/400/800)-01

MAIN INTERFACE (J1 DB37P)

POWER 28VDC INPUT
 POWER ENABLE
 POWER GND

REPROGRAMMING AND
 CEMS CONTROL PORTS

DISCRETE INPUTS

RECEIVER
 INTERFACE (EACH CHANNEL) P1 DB25P

LH AUDIO HIGH
 LH AUDIO LOW
 STEREO AUDIO OUTPUT
 RH AUDIO HIGH
 RH AUDIO LOW

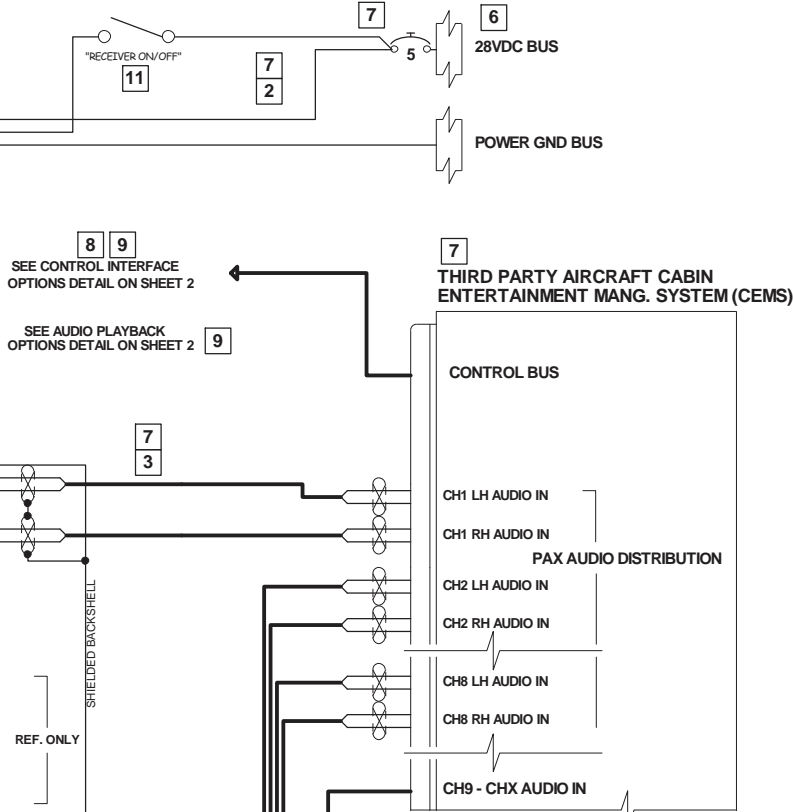
DISCRETE CONTROL INPUTS
 CHAN UP
 CHAN DOWN
 CATEGORY UP
 CATEGORY DOWN
 PRESET UP
 PRESET DOWN
 DISCRETE COMMON

OTHER RECEIVERS (P2-PX DB25P)

ANTENNA IN (SMA JACK)

ANTENNA OUT (SMA JACK)
 XMR400 AND XMR800 ONLY

ANTENNA DAISY-CHAIN
 OUTPUT TO NEXT RECEIVER
 VERIFY TERMINATOR IS INSTALLED
 IF NOT USED (INSTALLED AT FACTORY)
 (HEADS UP P/N CON428)



REV	DESCRIPTION	DATE/BY
C	ADDED ANTENNA OUTPUT TERMINATOR NOTE ADDED REPROGRAMMING NOTE	01/07/04 JDH
D	ADDED AUDIO INTERNATIONAL CEMS I/F UPDATED ANTENNA OUT INFO.	09/29/04 JDH
E	ADDED DISCRETE INPUTS INFO PER ECN 894 ON SHT 2. CHANGED 'CAMS' TO 'CEMS'. ADDED HJT EXT. 485 I/F INFO.	03/01/05 JDH
F	UPDATE NOTE 4. ADDED DISABLE ANNOUNCEMENTS CFG STRAP INPUT (SHT 2). ADDED 'OR SIMILAR' TO ANTENNA. MOVE CEMS INFO TO SHT 2. CHANGED NOTE 9.	01/30/06 JDH
G	UPDATED NOTE 4.	03/31/06 JDH

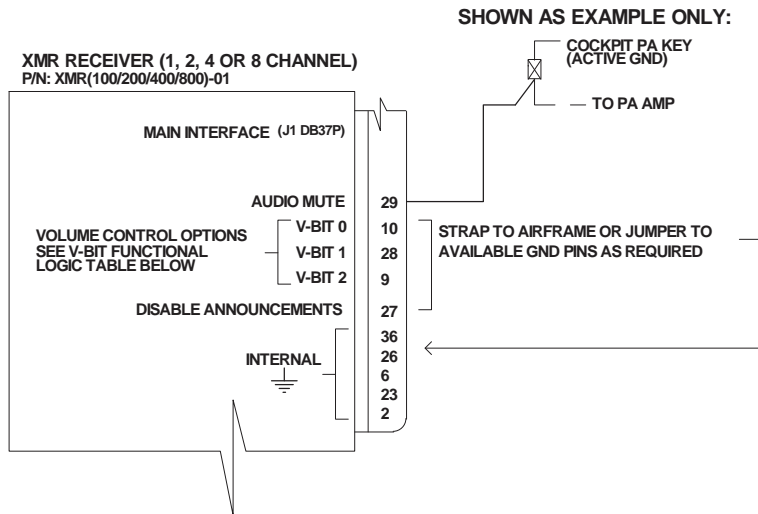
NOTES: UNLESS OTHERWISE SPECIFIED

- ALL WIRING TO BE INSTALLED PER A/C MANF. SPECS AND/OR FAA AC-4313.
- ALL WIRE PER M22579/16-22 OR AS APPLICABLE.
- SHIELDED/TWISTED CABLE PER M27500A24TE2T14 OR AS APPLICABLE.
- SATELLITE ANTENNA GAIN AT INPUT TO BE 22dB (+/- 2dB). REFER TO INSTALLATION MANUAL, XMR-3, REV. C OR LATER FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- CONNECTORS SHALL BE THE FOLLOWING, OR EQUIVALENT:
 (SMA PLUG) TYCO/AMP P/N 225532-3
 (DB37S) M24308/2-4F
 (DB25S) M24308/2-3F
 (DB9S) M24308/2-1F
 OTHER CONNECTORS USED SHALL BE TBD BY INSTALLER.
- POWER BUS VOLTAGE SHALL NOT EXCEED RTCA/DO160D CATEGORY Z
- SHOWN FOR REFERENCE ONLY. NOT INCLUDED IN SYSTEM AND TO BE SUPPLIED BY INSTALLER.
- CUSTOM CONTROL INTERFACE TYPES AVAILABLE. CONSULT HUT ENGINEERING WITH PROTOCOL SPECS. SEE SHEET 2 FOR EXISTING INTERFACES.
- FEATURES SHOWN APPLICABLE TO XM SYSTEMS WITH SOFTWARE VERSION 1.16 OR LATER.
- MOUNTING STRUCTURE SHALL PROVIDE CHASSIS GROUND CONNECTION TO AIRFRAME
- APPLY 28VDC/30mA TO POWER ENABLE. WIRE DIRECT TO POWER SOURCE IF DESIRED BY INSTALLER.
- REPROGRAMMING JACK SHOULD BE LOCATED FOR USER MAINTENANCE ACCESS. CONNECTOR AND MOUNTING BRACKET ARE PROVIDED IN INSTALL KIT.

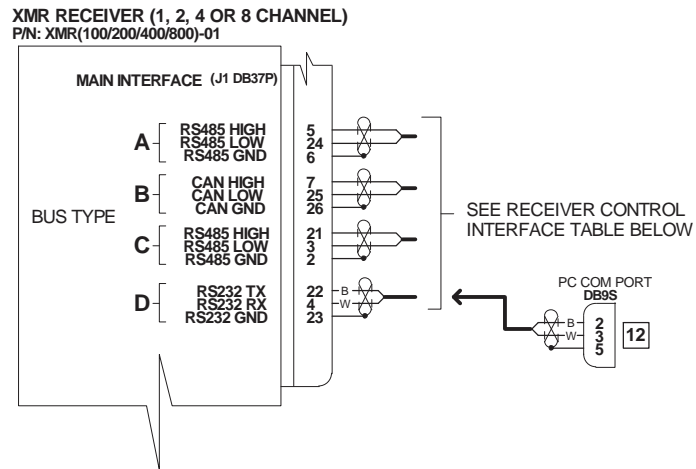
DRAWN: JOHN HEADER	DATE: 10/28/02	HEADS UP TECHNOLOGIES A 2033 Chennault Dr, Suite 100 Carrollton, Texas 75006-5097
CHECKED: RON BURKEY	DATE: 10/28/02	
ENGINEER: JOHN HEADER	DATE: 10/28/02	WIRING REFERENCE DIAGRAM XMR RECEIVER ONLY SYSTEM
APPROVED: JIM ALEXANDERSON	DATE: 10/28/02	SIZE: B DRAWING NUMBER: XMR-3B
RELEASED: C. PARRISH	DATE: 10/28/02	SHEET: 1 OF 2 REV: FILE: \\install\wmt\... XTR-3b receiver only wiring_G.asc

XMR TYPICAL WIRING REFERENCE DIAGRAM
AUDIO PLAYBACK AND CEMS INTERFACE OPTIONS
FOR PRODUCTS EQUIPPED WITH VER 1.16 OR LATER SOFTWARE

OPTIONAL AUDIO PLAYBACK CONTROL INPUT DETAIL



OPTIONAL RECEIVER CONTROL INTERFACE DETAIL



V-BIT FUNCTIONAL LOGIC TABLE

V-BIT INPUTS			PWR-UP VOLUME	VOLUME CONTROL	VOLUME SAVED
V-BIT 0 J1-10	V-BIT 1 J1-28	V-BIT 2 J1-9			
OPEN	OPEN	OPEN	NORMAL	YES	NO
GND	OPEN	OPEN	-9dB	YES	NO
OPEN	GND	OPEN	+4.5dB	FIXED	N/A
GND	GND	OPEN	+9dB	FIXED	N/A
OPEN	OPEN	GND	NORMAL	FIXED	N/A
GND	OPEN	GND	-9dB	FIXED	N/A
OPEN	GND	GND	-15dB	FIXED	N/A
GND	GND	GND	AS STORED	YES	YES

RECEIVER CONTROL INTERFACE TABLE

BUS TYPE	DESCRIPTION	NOTE
A	INTERNAL RS485 BUS INTERFACE	HEADS UP PROPRIETARY HIGH-LEVEL PROTOCOL FOR XMC100 CONTROLLER TO RECEIVER AND RECEIVER TO RECEIVER SYSTEMS.
B	CAN BUS INTERFACE	PROPRIETARY TO HONEYWELL (BAKER) MH SERIES CEMS.
C	EXTERNAL RS485 BUS INTERFACE	NOTE: DUAL PROTOCOL SUPPORTED USING ONE OF THE FOLLOWING: 1) INTERFACE CONTROL PER HEADS-UP DOC. "RS485/RS232 EXTERNAL INTERFACE PROTOCOL", VER. 0.4 OR LATER. 2) PROPRIETARY AUDIO INTERNATIONAL CEMS RS485 CONTROL PROTOCOL.
D	EXTERNAL RS232 BUS INTERFACE	REPROGRAMMING PORT USED TO UPLOAD FIRMWARE AND XM CHANNEL ANNOUNCEMENT AUDIO FILES. CAN ALTERNATIVELY BE USED AS RS232 EXTERNAL CONTROL BUS PER HEADS UP DOC. "RS485/RS232 EXTERNAL INTERFACE PROTOCOL" VER 0.4 OR LATER.

HEADS UP TECHNOLOGIES
2033 Cherrystone Dr, Suite 100
Carrollton, Texas 75006-5097

WIRING REFERENCE DIAGRAM
XMR RECEIVER ONLY SYSTEM

SIZE B DRAWING NUMBER XMR-3B

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