

REVISION					
AUTHORITY	REV	DESCRIPTION	BY	DATE	APVD
ECO-0171735	-	SEE ECO-0171735	JS	2008-07-07	J.Craig
ECO-0179684	A	SEE ECO-0179644	JA	2008-08-25	J. CRAIG
ECO-0185071	B	SEE ECO-0185071	JA	2008-10-03	J. CRAIG
ECO-0196375	C	ADD 206 Status	CT	2008-12-11	DGB
ECO-0204598	D	Corrected Revisions for all status's	CT	2009-02-25	M BENTLEY
ECO-0222264	E	Create new Status -214	CT	2009-08-05	M. BENTLEY
ECO-0281668	F	Changed Access Card to -020	CT	2010-06-15	M. BENTLEY
ECO-0290819	G	Create New Status -215	CT	2010-08-23	M. BENTLEY
ECO- 0307158	H	Clarified channel download instructions and removed -209 kit.	CT	2010-12-02	M. BENTLEY
ECO-0356681	J	Obsolete -207 Kit.	CT	2011-11-14	M. BENTLEY
ECO-0394748	K	SEE ECO-0394748	CT	2012-07-11	P. MUNROE
ECO-0400257	L	See ECO-0400257	PC	2012-08-22	P. MUNROE
ECO-0503335	M	ECO-0503335		2015-01-15	P. MONROE
ECO- 0538653	N	Obsolete -206 Kit		2015-11-20	P. Munroe

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	CHK M.Sterner		On File			
MATERIAL	APVD J.Craig		On File	DRAWING TITLE <b>TAILWIND 500/550 Region Kits</b>		
WEIGHT	SIZE <b>A</b>	CAGE CODE <b>4V792</b>	DWG NO <b>983-9472</b>	REV <b>N</b>		
SCALE NONE		Word for Windows 6.0	SHEET 1	OF 19		

# 1. DESCRIPTION

Region Kits					
Rev	Part Number	TV Service Region (Satellite)	Conditional Access Type	Provider	Service ID
N	983-9472-204	Europe (Astra 19.2°E)	Free To Air	N/A	14
N	983-9472-205	Europe (Hotbird 13.0°E)	Free To Air	N/A	11
N	983-9472-206	Obsolete			
J	983-9472-207	Obsolete			
N	983-9472-208	Middle East (Nilesat 7.0°W)	Free To Air	N/A	13
N	983-9472-210	India (NSS06 95°E)	Free To Air	N/A	12
N	983-9472-212	Middle East (Arabsat 26°E)	Free To Air	N/A	18
N/A	N/A	CONUS (DTV 4S101.1°W)	N/A	DirecTV	10
N	983-9472-214*	Russia (Eutelsat W4 36°E)	Free To Air	N/A	17
N	983-9472-215*	China (Telstar 18 138°E)	Free To Air	N/A	19

**Table 1: List of Kits and Relative Information**

\* RDU Service Bulletin 10 must be installed prior to installation of this Region Kit.

NOTE: DirecTV does not require a region kit (applies to 931000-202 Receiver 1 only).

# 2. BILL OF MATERIALS

NOTE: Each kit shall contain sheets 2 thru 19 of this document in paper or electronic format or similar documentation when shipped to the customer.

983-9472-204

Item	Qty.	P/N	Description
1	1	983-9767-031	REGION KIT LABEL
2	1	930800	AIRSHOW TV TEST KIT SOFTWARE MEDIA

983-9472-205

Item	Qty.	P/N	Description
1	1	983-9767-031	REGION KIT LABEL
2	1	930800	AIRSHOW TV TEST KIT SOFTWARE MEDIA

983-9472-206 OBSOLETE

983-9472-207 OBSOLETE

983-9472-208

Item	Qty.	P/N	Description
1	1	983-9767-031	REGION KIT LABEL
2	1	930800	AIRSHOW TV TEST KIT SOFTWARE MEDIA

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DWN	SCALE	NONE	SHEET 2	

983-9472-210

Item	Qty.	P/N	Description
1	1	983-9767-031	REGION KIT LABEL
2	1	930800	AIRSHOW TV TEST KIT SOFTWARE MEDIA

Note: ````For premium content the customer is responsible for obtaining access cards and Conditional Access Modules from Dish TV

983-9472-212

Item	Qty.	P/N	Description
1	1	983-9767-031	REGION KIT LABEL
2	1	930800	AIRSHOW TV TEST KIT SOFTWARE MEDIA

983-9472-214

Item	Qty.	P/N	Description
1	1	983-9767-031	REGION KIT LABEL
2	1	930800	AIRSHOW TV TEST KIT SOFTWARE MEDIA

983-9472-215

Item	Qty.	P/N	Description
1	1	983-9767-031	REGION KIT LABEL
2	1	930800	AIRSHOW TV TEST KIT SOFTWARE MEDIA

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	<b>A</b>	<b>4V792</b>	<b>983-9472</b>	<b>N</b>
DWN	SCALE	NONE	SHEET 3	

### 3. INSTALLATION INSTRUCTIONS

#### 3.1 Required Equipment/tools not supplied with the Region kits:

P/N	Description	Vendor
931407-100-1 Or ASI-931407-100	RDU Configuration Adapter Cable (Maintenance Cable)	Rockwell Collins Or Avionic Specialist Inc.
N/A	Laptop with a serial port or USB to RS232 adapter (Adapter must be configured to use COM 1 or COM 2 only)	Any

**Table 2 - Required Equipment**

#### 3.2 Installation Instructions:

- o NOTE: A 931000-200 RDU has two Common Interface receivers. A 931000-202 RDU is configured with DirecTV for receiver 1 and Common Interface for receiver 2. Receiver 1 on a 931000-202 RDU comes with a DirecTV access card pre-installed from the factory
  
- a) Remove power from the Tailwind system.
- b) For region kits containing Access Cards and Conditional Access Modules (CAMs) perform steps c) through g). For kits with no Access Cards/CAMs, skip to step h).
- c) Write down the Access Card serial number and CAM module serial number. These will be required later for activation of the receivers.
- d) Insert Access Card in CAM
  - Installing a region kit into a 931000-202 RDU (receiver 2 only):
    - o Refer to figures 2 and 4 for orientation of Access Card and CAM module
  - Installing a region kit into a 931000-200.
    - o Refer to figures 3 and 4 for orientation of Access Cards and CAM modules
  - Do not mix Access cards and CAM modules. Only insert an Access Card into a CAM module from the same kit.
  - ***Ensure the Access Card is properly aligned (the sides of the Access Card should not protrude out the sides of the CAM) after it is inserted into the CAM.***
- e) Open Cover on RDU
- f) Refer to Figures 2 and 4 (931000-202 RDU) or Figures 3 and 4 (931000-200 RDU):
  - Insert CAM/Access Card assembly into the RDU as shown in the figures.

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DWN	SCALE	NONE	SHEET 4	

- g) Close Cover on RDU
- h) Connect Maintenance cable (RCI P/N: 931407-100-1, see Figure 5) to RDU front panel and to PC.
  - Connect the maintenance cable's connector labeled "1P2" into the RDU's maintenance port (labeled "Maint J2").
  - Connect the maintenance cable's connector labeled "MAINT" to the Laptop's COM1 or COM2 serial port (or USB to RS232 adapter).
- i) Apply power to the RDU and wait about 30 seconds for the unit to boot up.
- j) Insert CD into CD drive. Or, Insert USB drive into a free USB port.
- k) Copy the file named ATVRDU.EXE (supplied with the region kit as part of the AIRSHOW TV Test Kit Software CD or USB drive) to your computer, and note the location where the file was copied to.
- l) Open ATVRDU.exe software and configure the COM port:
  - Double click on the file "ATVRDU.exe" to start the program
  - If the message in Figure 6 or a similar one appears on the screen, click the "Ignore" button and proceed.

**After clicking the "Ignore" button, the program will display "wait...." on the screen as shown in Figure 7. This means that the program is trying to configure the COM port automatically. It may succeed if the cables are connected properly and the RDU is running properly. If the program cannot find the RDU automatically, it will display the message in Figure 8. If the program finds the RDU automatically, it will display the message in Figure 10. In this case, proceed to step m.**

- To configure the COM Port, enter the following and refer to Figure 9:
  - 1) On the keyboard, press Alt-M.
  - 2) For "Select COM port", on the keyboard press 1 or 2 and then press Enter, depending on the COM port used on the laptop.
  - 3) For "Enter baud rate", on the keyboard type 9600 and then press Enter.
  - 4) For "Enter stop bits", on the keyboard type 1 and then press Enter.
  - 5) For "Enter data bits", on the keyboard type 8 and then press Enter.
  - 6) For "Parity", on the keyboard type 0 (Zero) and then press Enter.
  - 7) On the keyboard, press Alt-Z to verify if COM Setup is correct.

- m) Table 1 Enter commands to set the region ID for the applicable IRD/kit (Refer to Table 1 above to determine the region/service ID to be used with the region kit being installed)

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DWN	SCALE	NONE	SHEET 5	

NOTE: "Ctrl-B" and "Ctrl-C" indicate the combination of both keystrokes (i.e., hold CTRL and press "B").

NOTE: Placement of empty spaces (hit the spacebar) is important for the command to execute properly.

- 931000-200 RDU ONLY: On the ATVRDU utility enter the following commands to configure receiver 1 :
  - 1) "Ctrl-B 1301 **XX** Ctrl-C". See Table 1 for "**XX**" which is the appropriate service ID number for the kit that is being installed.
  - 2) To verify that the correct service ID was programmed into receiver 1, enter the following command: "Ctrl-B 1300 Ctrl-C" The responses will look similar to those shown in Figure 11 below, but it will show the service ID you entered.
  
- 931000-200, or 931000-202 RDU: On the ATVRDU utility enter the following commands to configure receiver 2:
  - 1) "Ctrl-B 1401 **XX** Ctrl-C". See Table 1 for "**XX**" which is the appropriate service ID number for the kit that is being installed.
  - 2) To verify that the correct service ID was programmed into receiver 2, enter the following commands: "Ctrl-B 1400 Ctrl-C" The responses will look similar to those shown in Figure 11 below, but it will show the service ID you entered.

For region kits that contain CAMs and Access Cards continue to step n). For region kits that do not contain CAMs and Access Cards continue to step o).

n) Change the Access Card Numbers

To change an Access Card Number, complete the following:

- 1) For region kits that contain a new Access Card in receiver 1:
 

On the ATVRDU utility enter the following commands to change Access Card Number for Receiver 1:  
 Type Alt-C and the following message appears;  
 "Enter the Access Card Number (1 to 8):"  
 Type 1 and press Enter. The following response is displayed;  
 "The present serial number for access card 1 = XXXXXXXXXXXX"  
 "Change the Access Card number (Y or N)?":  
 Type Y and press Enter and the following message is displayed:  
 "Enter the new serial number:"  
 Type in serial number recorded for receiver 1 in Paragraph 3.2 Installation Instructions step c) and press Enter. The following message appears:  
 "Now the serial number for access card 1 = XXXXXXXXXXXX"  
 The responses will look similar to those shown in Figure 12.
  
- 2) For region kits that contain a new Access Card in receiver 2:
 

On the ATVRDU utility enter the following commands to change Access Card Number for Receiver 2:

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	<b>A</b>	<b>4V792</b>	<b>983-9472</b>	<b>N</b>
DWN	SCALE	NONE	SHEET 6	

Type Alt-C and the following message appears;  
 "Enter the Access Card Number (1 to 8):"  
 Type 2 and press Enter. The following response is displayed;  
 "The present serial number for access card 2 = XXXXXXXXXXXX"  
 "Change the Access Card number (Y or N)?":  
 Type Y and press Enter and the following message is displayed:  
 "Enter the new serial number:"  
 Type in serial number recorded for receiver 2 in Paragraph 3.2 Installation  
 Instructions step c) and press Enter. The following message appears:  
 "Now the serial number for access card 2 = XXXXXXXXXXXX"  
 The responses will look similar to those shown in Figure 12.

o) Channel Scanning Procedure for Region Kit -210 ONLY, for Region Kit -214 proceed to step p), for Region Kit -215 proceed to step q), for all other Region Kits proceed to step r):

This step involves viewing a monitor on board the aircraft and accessing the menu for the affected IRD.

- Select Menu
- Select "antenna setup"
- Scroll to "Name" and scroll left or right to display satellite names. Find and select an empty slot
- Enter "NSS06" and select enter
- Set the rest of the items on the "antenna setup" page to the settings below:
  - LNB Type: UNIV
  - LNB Dish: Fixed
  - DisEqC Switch: OFF
  - Sat Lock: OFF
  - Scan Mode: ALL
  - Network Search: ON
- Press OK and exit "Antenna Setup" menu, returning back to the Main Menu.
- Scroll down to "Manual Scan" and select
- Scroll through the satellite names and find "NSS06"
- Scroll down to TP Freq. and select
- Select Add from the TP menu and enter a transponder frequency from the satellite. Use 12.688 GHz (V). NOTE: These transponder frequencies may be changed by the satellite operators. The frequencies may be checked on websites such as [www.Lyngsat.com](http://www.Lyngsat.com).
- Enter "12688" without the decimal point.
- Scroll down to "Polarization" and select "Vertical".
- Scroll down to "Symbol Rate" and enter "27500"
- Hit OK to save data
- Scroll to "Network Search" and set it to ON
- Scroll to "TP Scan" and press OK to scan transponder
- Upon completion of the transponder scan return to the "Main Menu"
- Select "Antenna Setup" and scroll to and select "NSS06"
- Scroll to the top of the screen and press OK to initiate satellite scan
- All transponders will be scanned and saved. This may take 5-10 minutes.

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DWN	SCALE	NONE	SHEET 7	

p) Channel Scanning Procedure for Region Kit -214 ONLY, for Region Kit -215 proceed to step q), for all other Region Kits proceed to step r):

This step involves viewing a monitor on board the aircraft and accessing the menu for the affected IRD.

- Select Menu
- Select “antenna setup”
- Scroll to “Name” and scroll left or right to display satellite names. Find and select an empty slot
- Enter “Eutelsat 36” and select enter
- Set the rest of the items on the “antenna setup” page to the settings below:
  - LNB Type: UNIV
  - LNB Dish: Fixed
  - DisEqC Switch: OFF
  - Sat Lock: OFF
  - Scan Mode: ALL
  - Network Search: ON
  
- Press OK and exit “Antenna Setup” menu, returning back to the Main Menu.
- Scroll down to “Manual Scan” and select
- Scroll through the satellite names and find “Eutelsat 36”
- Scroll down to TP Freq. and select
- Select Add from the TP menu and enter a transponder frequency from the satellite. Use 12.303 GHz (V). NOTE: These transponder frequencies may be changed by the satellite operators. The frequencies may be checked on websites such as [www.Lyngsat.com](http://www.Lyngsat.com).
- Enter “12303” without the decimal point.
- Scroll down to “Polarization” and select “Horizontal”.
- Scroll down to “Symbol Rate” and enter “27500”
- Hit OK to save data
- Scroll to “Network Search” and set it to ON
- Scroll to “TP Scan” and press OK to scan transponder
- Upon completion of the transponder scan return to the “Main Menu”
- Select “Antenna Setup” and scroll to and select “Eutelsat 36”
- Scroll to the top of the screen and press OK to initiate satellite scan
- All transponders will be scanned and saved. This may take 5-10 minutes.

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DWN	SCALE NONE		SHEET 8	



q) Channel Scanning Procedure for Region Kit -215 ONLY, for all other Region Kits proceed to step r):  
This step involves viewing a monitor on board the aircraft and accessing the menu for the affected IRD.

- Select Menu
- Select “antenna setup”
- Scroll to “Name” and scroll left or right to display satellite names. Find and select an empty slot
- Enter “Telstar 18” and select enter
- Set the rest of the items on the “antenna setup” page to the settings below:
  - LNB Type: 11250
  - LNB Power: 13/18
  - 22 kHz: AUTO
  - LNB Dish: Fixed
  - DisEqC Switch: OFF
  - Sat Lock: OFF
  - Scan Mode: ALL
  - Network Search: ON
  
- Press OK and exit “Antenna Setup” menu, returning back to the Main Menu.
- Scroll down to “Manual Scan” and select
- Scroll through the satellite names and find “Telstar 18”
- Scroll down to TP Freq. and select
- Select Add from the TP menu and enter a transponder frequency from the satellite. Use 12.538 GHz (V). NOTE: These transponder frequencies may be changed by the satellite operators. The frequencies may be checked on websites such as [www.Lynsat.com](http://www.Lynsat.com).
- Enter “12538” without the decimal point.
- Scroll down to “Polarization” and select “Vertical”.
- Scroll down to “Symbol Rate” and enter “41250”
- Hit OK to save data
- Scroll to “Network Search” and set it to ON
- Scroll to “TP Scan” and press OK to scan transponder
- Upon completion of the transponder scan return to the “Main Menu”
- Select “Antenna Setup” and scroll to and select “Telstar 18”
- Scroll to the top of the screen and press OK to initiate satellite scan
- All transponders will be scanned and saved. This may take 5-10 minutes.

r) Cycle power to the system.

- Remove power to the Tailwind system and wait at least 45 seconds before reapplying power.

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DWN	SCALE NONE		SHEET 9	

- s) For Region Kits with an Access Card/CAM module, contact Rockwell Collins Member services in order to activate your receiver in the appropriate region. Kits that do not contain Access Cards/CAMs do not require activation.
- t) Refer to [www.myairshow.net](http://www.myairshow.net) to download the channel list for the current region. (except -210, -214, and -215). You may also refer to the applicable Aircraft Maintenance Manual for instructions for visiting [www.myairshow.net](http://www.myairshow.net) and downloading the appropriate channel list for the desired region. Tailwind 500 Aircraft Maintenance Manual Part Number 523-0817995, or Tailwind 550 Aircraft Maintenance Manual P/N 523-0818564.
- u) Apply region kit label where shown in Figure 1.
- v) Mark applicable region kit number by drawing a diagonal or horizontal line through the number, using a black permanent ink marker or (if the kit number is not preprinted on the label) by printing the new kit number in the blank space provided and then drawing a circle around that number using a black permanent ink marker.
- w) If a region kit was installed in the other IRD, re-mark the appropriate kit for that IRD.

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DWN	SCALE NONE		SHEET 10	

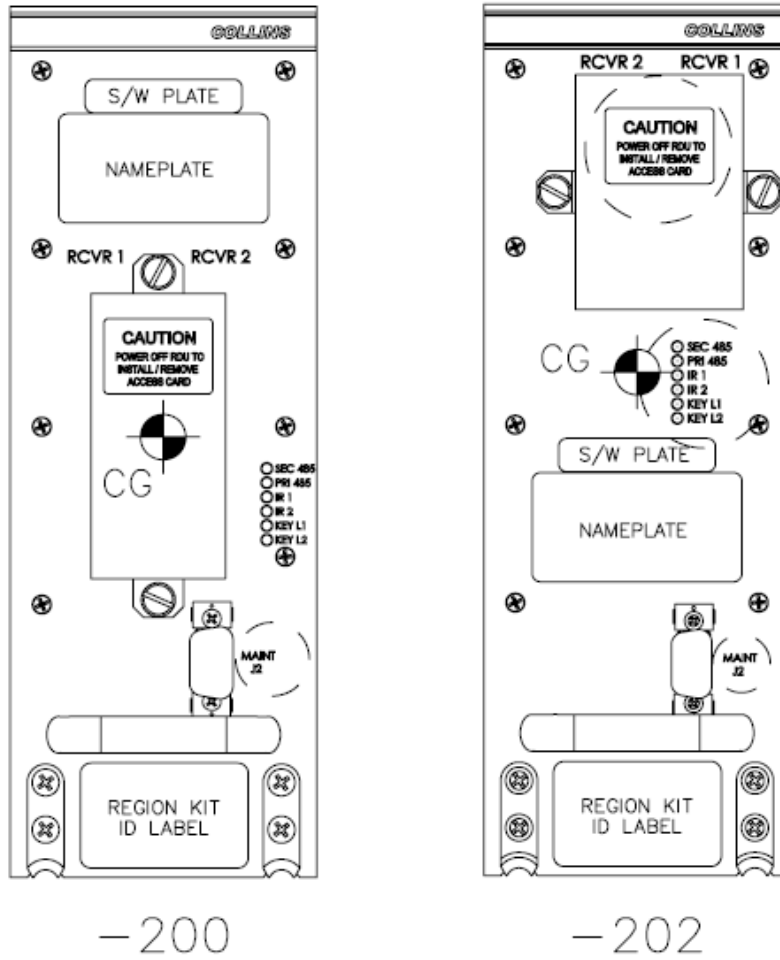
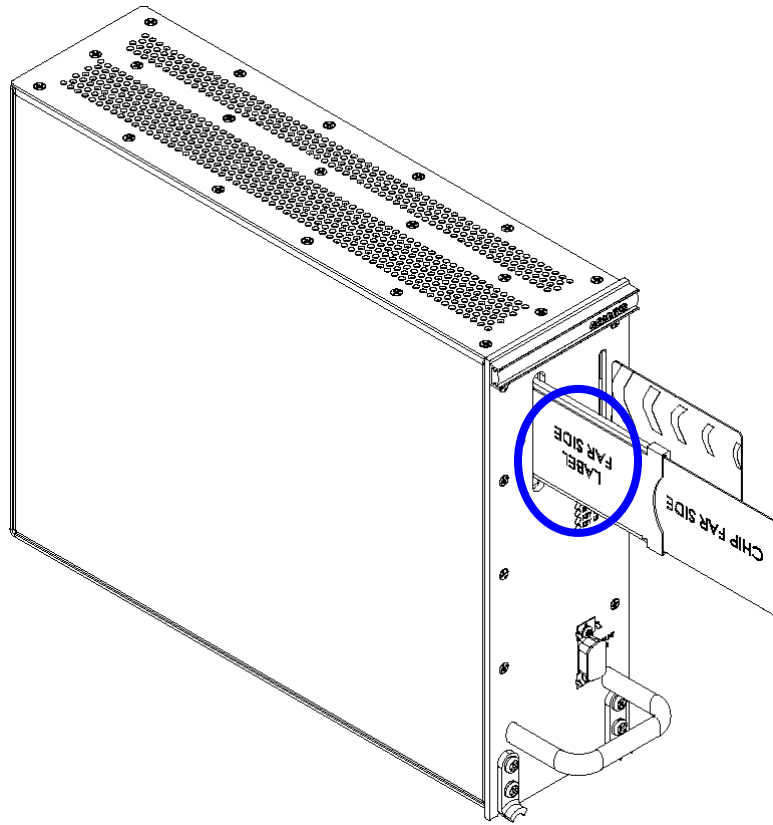


Figure 1 - Placement of Region Kit Label on RDU

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	SCALE	NONE		SHEET 11



Refer to  
Figure 4 for  
Details

Figure 2: CAM Module/Access card orientation for 931000-202 (Receiver #2 only - Larger Left side slot)  
Receiver 1 should have a DirecTV access card pre-installed at the factory.

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	<b>A</b>	<b>4V792</b>	<b>983-9472</b>	<b>N</b>
DWN	SCALE NONE		SHEET 12	

Refer to  
Figure 4 for  
Details

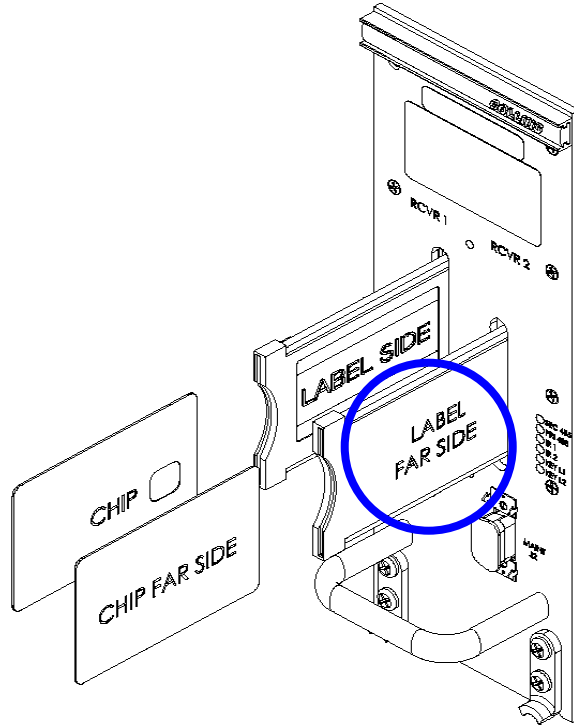


Figure 3: CAM Module/Access card orientation for 931000-200 (Both receivers – 1 and 2)

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DWN	SCALE	NONE	SHEET 13	

**CAM  
"Label Side"**



**CAM  
"Back Side"**



**Access Card  
"Chip Side"**

**Chip**

**Align Chip Side  
with  
Label Side**

**CAM  
"Back Side"  
(Front View)**



**CAM  
"Label Side"  
(Front View)**

**Figure 4: CAM/Access Card orientation detail.**

**Note: The "Viaccess" CAM and the "TPS" Access Card shown above are only for reference – There are several different "Vendors" of these and the labels and colors will vary.**

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	DWN	<b>A</b>	<b>4V792</b>	<b>983-9472</b>
	SCALE	NONE		SHEET 14

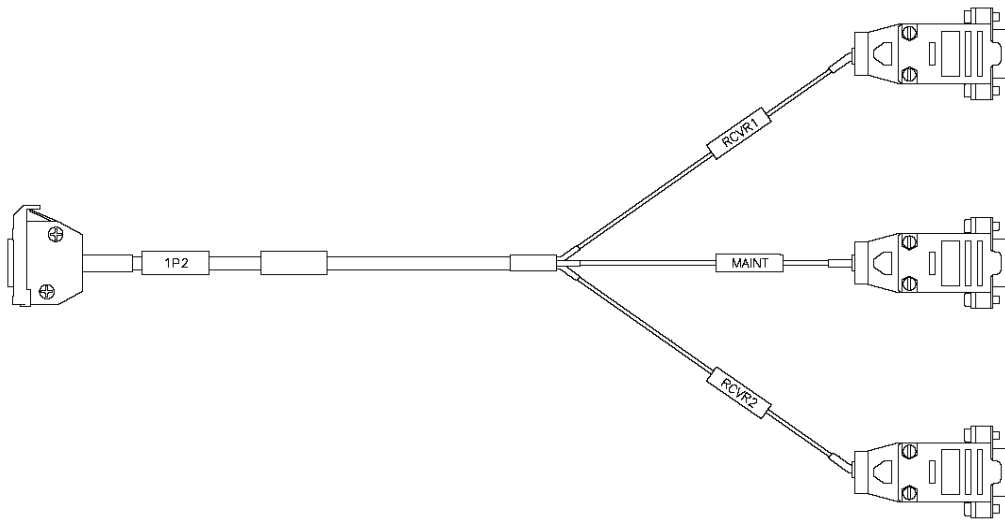


Figure 5: RDU Maintenance cable (configuration adapter)

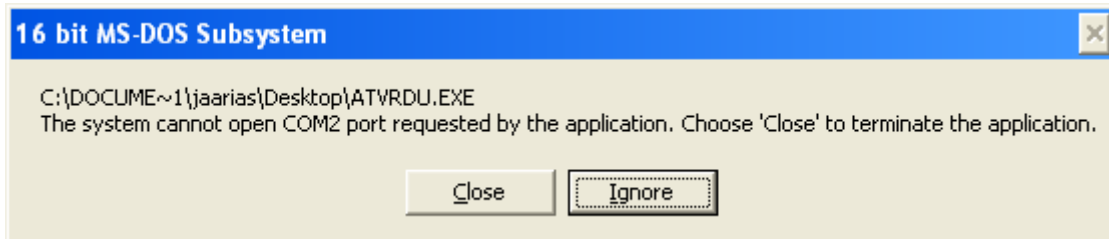


Figure 6: Initial message from ATVRDU.EXE

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	DWN	<b>A</b>	<b>4V792</b>	<b>983-9472</b>
	SCALE	NONE		SHEET 15

```

C:\DOCUME~1\jaarias\Desktop\ATVRDU.EXE
AIRSHOW TV RDU Software Utility REV 1.1
Alt-H -- Display This Menu      Alt-U -- Display RDU Configuration
Alt-F -- Start Log File        Alt-X -- Stop Log Data
Upload Program File or Database File
Alt-U -- Upload File           Alt_W -- Upload All Database Files
Alt-7 -- Erase Uploaded Files  Alt-K -- Display Database Directory
Set Configuration Items
Alt-T -- Set RDU Serial Number  Alt-N -- Set HW Part Number
Alt-L -- Set LRU Filename      Alt-P -- Set Database Version Number
Alt-C -- Set Access Card Serial Number
Set Time/Date
Alt-3 -- Display RDU Time/Date  Alt-4 -- Set RDU Time/Date to PC Time
Alt-5 -- Set PC Time and Date
Test Modes
Alt-R -- Report Discrete Inputs  Alt-D -- Set Discrete Outputs
Alt-B -- Report Battery State
Alt-I -- Output Data File to IRD  Alt-J -- Output Control File to IRD
Alt-1 -- Sim Primary Message     Alt-2 -- Sim Secondary Message
COM Port
Alt-S -- Display COM Status      Alt-M -- Change COM Setup
Alt-Z -- Search for active COM Port

Alt-Q -- Quit
Wait ....

```

Figure 7: ATVRDU.exe showing the “wait ....” message

```

C:\DOCUME~1\jaarias\Desktop\ATVRDU.EXE
Alt-F -- Start Log File        Alt-X -- Stop Log Data
Upload Program File or Database File
Alt-U -- Upload File           Alt_W -- Upload All Database Files
Alt-7 -- Erase Uploaded Files  Alt-K -- Display Database Directory
Set Configuration Items
Alt-T -- Set RDU Serial Number  Alt-N -- Set HW Part Number
Alt-L -- Set LRU Filename      Alt-P -- Set Database Version Number
Alt-C -- Set Access Card Serial Number
Set Time/Date
Alt-3 -- Display RDU Time/Date  Alt-4 -- Set RDU Time/Date to PC Time
Alt-5 -- Set PC Time and Date
Test Modes
Alt-R -- Report Discrete Inputs  Alt-D -- Set Discrete Outputs
Alt-B -- Report Battery State
Alt-I -- Output Data File to IRD  Alt-J -- Output Control File to IRD
Alt-1 -- Sim Primary Message     Alt-2 -- Sim Secondary Message
COM Port
Alt-S -- Display COM Status      Alt-M -- Change COM Setup
Alt-Z -- Search for active COM Port

Alt-Q -- Quit
Wait .... Cannot find active COM port
Check cables and equipment. Then try again with ALT-Z.
Status: COM2      9600 bps  1  8  N

```

Figure 8: ATVRDU.exe message when it cannot find an active COM port

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ROCKWELL COLLINS	SIZE	CAGE CODE	DWG NO	REV
	DWN	<b>A</b>	<b>4V792</b>	<b>983-9472</b>
SCALE NONE		SHEET 16		



```

c:\> C:\DOCUME~1\TW550\Desktop\Atvrdu.exe
AIRSHOW TV RDU Software Utility REV 1.1
Alt-H -- Display This Menu          Alt-U -- Display RDU Configuration
Alt-F -- Start Log File             Alt-X -- Stop Log Data
Upload Program File or Database File
Alt-U -- Upload File                Alt_W -- Upload All Database Files
Alt-7 -- Erase Uploaded Files       Alt-K -- Display Database Directory
Set Configuration Items
Alt-T -- Set RDU Serial Number      Alt-N -- Set HW Part Number
Alt-L -- Set LRU Filename           Alt-P -- Set Database Version Number
Alt-C -- Set Access Card Serial Number
Set Time/Date
Alt-3 -- Display RDU Time/Date      Alt-4 -- Set RDU Time/Date to PC Time
Alt-5 -- Set PC Time and Date
Test Modes
Alt-R -- Report Discrete Inputs     Alt-D -- Set Discrete Outputs
Alt-B -- Report Battery State
Alt-I -- Output Data File to IRD    Alt-J -- Output Control File to IRD
Alt-1 -- Sim Primary Message        Alt-2 -- Sim Secondary Message
COM Port
Alt-S -- Display COM Status          Alt-M -- Change COM Setup
Alt-Z -- Search for active COM Port

Alt-Q -- Quit
Wait .... Cannot find active COM Port
Check cables and equipment. Then try again with ALT-Z.
Status: COM2      9600 bps 1 8 N
Select COM port (1=COM1, 2=COM2):1
Enter baud rate:      9600
Enter stop bits:      1
Enter data bits:      8
Parity (0=none, 1=E, 2=O): 0

```

Figure 9: ATVRDU.exe showing the steps to setup the COM port

```

c:\> C:\DOCUME~1\TW550\Desktop\Atvrdu.exe
AIRSHOW TV RDU Software Utility REV 1.1
Alt-H -- Display This Menu          Alt-U -- Display RDU Configuration
Alt-F -- Start Log File             Alt-X -- Stop Log Data
Upload Program File or Database File
Alt-U -- Upload File                Alt_W -- Upload All Database Files
Alt-7 -- Erase Uploaded Files       Alt-K -- Display Database Directory
Set Configuration Items
Alt-T -- Set RDU Serial Number      Alt-N -- Set HW Part Number
Alt-L -- Set LRU Filename           Alt-P -- Set Database Version Number
Alt-C -- Set Access Card Serial Number
Set Time/Date
Alt-3 -- Display RDU Time/Date      Alt-4 -- Set RDU Time/Date to PC Time
Alt-5 -- Set PC Time and Date
Test Modes
Alt-R -- Report Discrete Inputs     Alt-D -- Set Discrete Outputs
Alt-B -- Report Battery State
Alt-I -- Output Data File to IRD    Alt-J -- Output Control File to IRD
Alt-1 -- Sim Primary Message        Alt-2 -- Sim Secondary Message
COM Port
Alt-S -- Display COM Status          Alt-M -- Change COM Setup
Alt-Z -- Search for active COM Port

Alt-Q -- Quit
Wait .... Program code is running.      Status: COM2      9600 bps 1 8 N

```

Figure 10: ATVRDU.exe showing COM port found automatically

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ROCKWELL COLLINS	SIZE	CAGE CODE	DWG NO	REV
	DWN	<b>A</b>	<b>4V792</b>	<b>983-9472</b>
	SCALE	NONE		SHEET 17

```

c:\C:\DOCUME~1\TW550\Desktop\Atvrdu.exe
AIRSHOW TU RDU Software Utility REV 1.1
Alt-H -- Display This Menu           Alt-U -- Display RDU Configuration
Alt-F -- Start Log File              Alt-X -- Stop Log Data
Upload Program File or Database File
Alt-U -- Upload File                 Alt_W -- Upload All Database Files
Alt-7 -- Erase Uploaded Files        Alt-K -- Display Database Directory
Set Configuration Items
Alt-T -- Set RDU Serial Number       Alt-N -- Set HW Part Number
Alt-L -- Set LRU Filename            Alt-P -- Set Database Version Number
Alt-C -- Set Access Card Serial Number
Set Time/Date
Alt-3 -- Display RDU Time/Date      Alt-4 -- Set RDU Time/Date to PC Time
Alt-5 -- Set PC Time and Date
Test Modes
Alt-R -- Report Discrete Inputs      Alt-D -- Set Discrete Outputs
Alt-B -- Report Battery State
Alt-I -- Output Data File to IRD     Alt-J -- Output Control File to IRD
Alt-1 -- Sim Primary Message        Alt-2 -- Sim Secondary Message
COM Port
Alt-S -- Display COM Status          Alt-M -- Change COM Setup
Alt-Z -- Search for active COM Port

Alt-Q -- Quit
^B 1301 11 ^C
1
^B 1300 ^C
RDU Config database service ID index 1 = 11
1
^B 1401 12 ^C
1
^B 1400 ^C
RDU Config database service ID index 2 = 12
1_

```

Figure 11: ATVRDU.exe showing the commands to program the service ID and their responses

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ROCKWELL COLLINS	SIZE	CAGE CODE	DWG NO	REV
	DWN	<b>A</b>	<b>4V792</b>	<b>983-9472</b>
	SCALE	NONE		SHEET 18

```

C:\DOCUMENT~1\TW550\Desktop\RDUAPP~1\Atvrdu.exe
AIRSHOW TU RDU Software Utility REU 1.1
Alt-H -- Display This Menu      Alt-U -- Display RDU Configuration
Alt-F -- Start Log File         Alt-X -- Stop Log Data
Upload Program File or Database File
Alt-U -- Upload File           Alt_W -- Upload All Database Files
Alt-7 -- Erase Uploaded Files   Alt-K -- Display Database Directory
Set Configuration Items
Alt-T -- Set RDU Serial Number  Alt-N -- Set HW Part Number
Alt-L -- Set LRU Filename       Alt-P -- Set Database Version Number
Alt-C -- Set Access Card Serial Number
Set Time/Date
Alt-3 -- Display RDU Time/Date  Alt-4 -- Set RDU Time/Date to PC Time
Alt-5 -- Set PC Time and Date
Test Modes
Alt-R -- Report Discrete Inputs  Alt-D -- Set Discrete Outputs
Alt-B -- Report Battery State
Alt-I -- Output Data File to IRD  Alt-J -- Output Control File to IRD
Alt-1 -- Sim Primary Message     Alt-2 -- Sim Secondary Message
COM Port
Alt-S -- Display COM Status      Alt-M -- Change COM Setup
Alt-Z -- Search for active COM Port

Alt-Q -- Quit
Wait ... Program code is running.      Status: COM2      9600 bps  1  8  N
Enter the Access Card Number <1 to 8>: 1
The present serial number for access card 1 = 40222760106
Change the Access Card Number <Y or N>?: y
Enter the new serial number: 40223476521
Now the serial number for access card 1 = 40223476521
Enter the Access Card Number <1 to 8>: 2
The present serial number for access card 2 = 40222760098
Change the Access Card Number <Y or N>?: y
Enter the new serial number: 40223482367
Now the serial number for access card 2 = 40223482367
-

```

Atvrdu.exe Screen Showing Access Card Number Messages  
Figure 12

#### 4. REFERENCE DOCUMENTATION

- 931000-200      Outline, Common Interface (CI), Receiver Decoder Unit (RDU), Tailwind 500/550
- 931000-202      Outline, US/Common Interface (CI), Receiver Decoder Unit (RDU), Tailwind 500

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<b>ROCKWELL COLLINS</b>	SIZE	CAGE CODE	DWG NO	REV
	<b>A</b>	<b>4V792</b>	<b>983-9472</b>	<b>N</b>
DWN	SCALE NONE		SHEET 19	