



TT1260
Digital IRD / Data
Guide

By the
Technical Support
Department

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AP Television News

YOUR
TT1260
IRD

FOR THE RECEPTION OF
AP Television News & SNTV



TT1260 Digital IRD Set-Up

INTRODUCTION

This information is intended as a guide on how to set up your newly delivered TT1260 IRD.

The IRD will be shipped with some of the parameters already set for reception of APTN services. In some cases, connecting the IRD and switching it on should result in a good quality reception. However, since individual antenna systems may be different there may be several items within the IRD menus that will need changing. This is explained in detail in the following pages.

As soon as you have received the unit, we would ask that you install the unit into your system.

PLEASE NOTE:

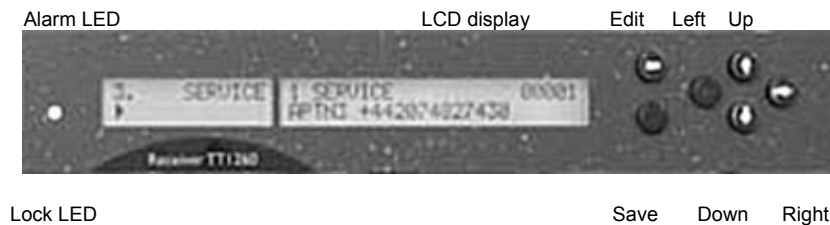
If power is applied to the IRD without the MPEG2 data being transmitted to the satellite then it will not be possible to receive any pictures from this system or store the set-up into the IRD's memory.

At this stage all of the RED ALARM Lamps will light, as there is no MPEG2 input to the unit. Do not Worry!

TANDBERG TT1260 RECEIVER/DECODER INSTALLATION



TT1260 Front Panel Controls & LEDs



Front Panel Controls and Push buttons

The physical interface for the Front Panel consists of an alphanumeric LCD display, Push buttons, and status LEDs that are used to set up and monitor the unit.

User input is via six Push buttons comprising four cursor Push buttons: **LEFT**, **RIGHT**, **UP**, and **DOWN**; and two edit control Push buttons: **EDIT** and **SAVE**.

Each push button has an integral green LED except **SAVE**, which has an integral red LED. When lit these LEDs indicate to the user which push button is currently active.

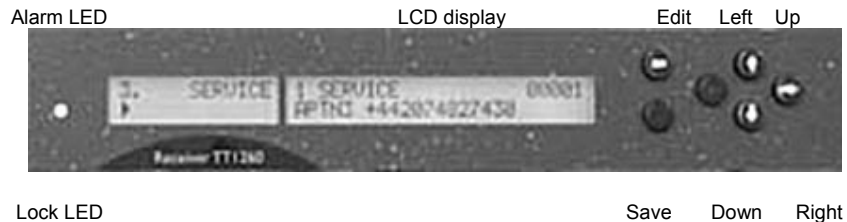
Front Panel LEDs

The red **ALARM** LED indicates an IRD fault condition, e.g. a missing or faulty input signal. It should be off for correct operation, although it may be lit briefly during power-up.

The green **LOCK** LED indicates that the IRD is locked to a transport stream when lit, and indicates correct conditions and correct system functioning.

Processing of events from the front panel event queue depends on the current operating mode of the front panel.

TT1260 Front Panel Operating Modes



Operating the TT1260 from the Front Panel is via two operating modes: **Navigate Mode** and **Edit Mode**.

Navigate Mode

Navigate mode allows the user to move between menus and pages within menus (editing the left display area). Push button LEDs will be updated to indicate which push button presses are still valid as each navigation push button press event is processed. For example, a lit **UP** push button LED indicates there are pages above the current one.

Edit Mode

Edit mode edits the right display area and allows the user to alter control parameters that define the TT1260 behaviour. To enter **EDIT** mode, press the **Edit** push button when illuminated green indicating a page containing an editable control parameter and the front panel is the controlling user interface.

The Front Panel returns to **Navigate** mode when **EDIT** is pressed again (abort edit with no save) or when **SAVE** is pressed (save modified parameter values). Processing of events from the front panel event queue depends on the current operating mode of the front panel.

Push button LEDs are updated to indicate which push button presses are still valid as each edit push button press event is processed. For example, when the **LEFT** push button LED is lit it indicates there are additional editable parameters to the left of the current cursor position.

There is a maximum idle period of 5 minutes when **Edit** mode will time out and return to **Navigate** mode.

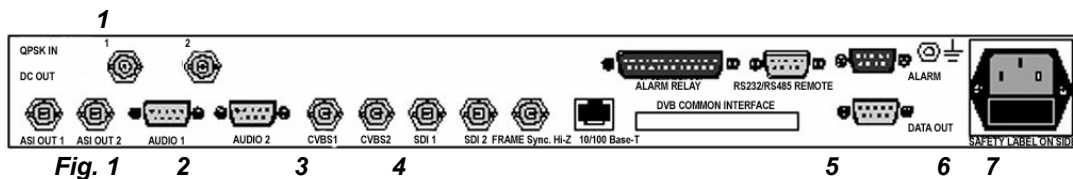
Selecting A Menu Option

1. Select the menu and display the required selection. Normally there is only one selectable item. If there is more than one, use the RIGHT and LEFT Push buttons.
2. Press EDIT on the front panel. The LED will come on to show the TT1260 is in EDIT mode.
3. Use the arrow Push buttons to step through the options. This action scrolls through the options in a continuous loop.
4. Press SAVE to store the option or press EDIT to cancel the selection and return to the source menu.

Entering A Menu Value

1. Select the menu and display the required selection.
2. Press EDIT on the front panel. The LED will come to show the TT1260 is in EDIT mode.
3. Use the RIGHT or LEFT push button to move the cursor to the required digit. Each push button has a built-in LED that turns on if the push button function is appropriate to the displayed information.
4. Change the value by using the arrow Push buttons.
5. Press SAVE to store the option.

TT1260 Rear Panel Connections



1. QPSK IN - RF INPUT - L BAND
2. AUDIO 1 and 2 OUT
3. CVBS 1 and 2 ANALOG VIDEO OUT
4. SDI 1 and 2 DIGITAL VIDEO OUT (EMBEDDED AUDIO)
5. RS-232 DATA OUT / AP9519 (APTV96) / 9600BPS DATA
6. AC MAINS
7. MAINS FUSE - 1.6A/250V

To assist APTN subscribers with taping schedules, *Bulletins* may be obtained from <http://www.aptn.com> - click on the Broadcast Schedule (View all) menu icon.

(All scheduled times are given in GMT)

POWERING UP THE RECEIVER/DECODER

1. Connect the satellite feed to QPSK IN #1 (See Fig. 1 on previous page)
2. Connect the video cable to CVBS 1 or 2 for analogue VIDEO or SDI 1 or 2 for digital video
3. Apply mains power to the receiver (See Fig. 1 on previous page)
4. All front panel LEDs will illuminate. The right display panel will read "TT1260 INITIALISING."
5. If the unit has not been preset, the following will display after a few seconds:

3.	SERVICE	NO SERVICES NO SELECTIONS	_____
----	----------------	--------------------------------------	-------

LED STATUS INDICATORS: The ALARM LED will be illuminated RED indicating the receiver is not locked to a signal. The UP, DOWN, and RIGHT arrows will be illuminated GREEN.

CONFIGURING THE RECEIVER/DECODER

Use the **UP** arrow to navigate to **MENU 2 "INPUT NOT LOCKED."** Use **RIGHT** arrow to **MENU 2.1 "INPUT QUALITY"** Use **DOWN** arrow to navigate to **MENU 2.2 "INPUT SELECT SOURCE 1."** Press **DOWN** arrow again to **MENU 2.3 "INPUT LNB FREQUENCY SOURCE 1 10750.0MHz."** Press the **EDIT** button and use the arrow buttons to change frequency to **05150.0** for C-Band or **manufacturer's specification** for Ku-Band. Press the **SAVE** button.

(C BAND) LNB LO FREQUENCY = 05150.0 MHz
(Ku Band) LNB LO FREQUENCY DETERMINES ON MANUFACTUER

2.3	INPUT SOURCE 1	LNB FREQUENCY 05150.0 MHz
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Press the **RIGHT** arrow **2.3.1 "Satellite Frequency Source 1."** Press the **EDIT**. Use the **LEFT** and **RIGHT** arrow buttons to move the cursor and the **UP** and **DOWN** arrow buttons to change values of numbers for frequency. Enter **03732.5 for AMC-3, 03750.3 for Intelsat 805, 03799.0 for AsiaSat 2 or 12629.6 for Eutelsat W1** reception. Press the **SAVE** button.

SATELLITE FREQUENCY = 03732.5 MHz (AMC3) - 03750.3 MHz (Intelsat 805) -03799.0 MHz (AsiaSat2) - 12629.6 MHz (EutelSat W1)

2.3.1	SOURCE 1	SATELLITE FREQUENCY 03732.5 MHz
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Press **DOWN** arrow for **2.3.2 "SYMBOL RATE SOURCE 1."** Press the **EDIT** button and use the arrow buttons to change to **05.632000 MSym/s**. Press the **SAVE** button.

SYMBOL RATE = 05.632000

2.3.2 SOURCE 1	SYMBOL RATE 05.632000 MSym/s
---------------------------------	---

4. Press **DOWN** arrow to **2.3.3 "MODULATION FEC SOURCE 1 QPSK AUTO."** Press the **EDIT** button and use the arrows to change FEC to 3/4. Press the **SAVE** button.

MODULATION = QPSK FEC = 3/4

2.3.3 SOURCE 1	MODULATION FEC QPSK 3/4
---------------------------------	--

SUPPLYING DC POWER TO THE LNB

5. Press **DOWN** arrow to **2.3.4 "LNB Power Off Source 1."** Press the **EDIT** button and use the **DOWN** arrow to select **LNB POWER ON AT 18V (H)** if the receiver will be providing DC power to the LNB. If display reads "AT 13V (Vertical)", press the **RIGHT** button to move cursor under "13V." Use **DOWN** arrow to change to 18V (Horizontal). (*OFF should be selected if the unit will not be powering the LNB.*) Press the **SAVE** button.

2.3.4 SOURCE 1	LNB POWER ON AT 18V (H)
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Unit should be locked, green LED illuminated.

6. Press **DOWN** arrow twice to "**2.3.6 Search Range.**" Verify **Source 1 5000KHz**.

7. Press **LEFT** arrow twice and **DOWN** Arrow once for **Menu 3 Service.** Verify **1 SERVICE 00001**
APTN3 +442074827430.

VIDEO SETTINGS

8. Press **RIGHT** arrow twice and **DOWN** arrow 3 times to **3.1.4 VIDEO.** Press **EDIT** button and change 525 LINE-OUTPUT to NTSC-M NP using **DOWN** arrow. Press the **SAVE** button. (*For NTSC users only.*)

3.1.4 VIDEO	525 LINE OUTPUT NTSC-M NP 625 LINE OUTPUT PAL-B/G/I
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9. Press **DOWN** arrow to **3.1.5 VIDEO**. Verify **DEFAULT LINE STANDARD 525** (525 for NTSC, 625 for PAL) and **FAIL MODE FREEZE FRAME**. To change values press **EDIT**. Use **UP** and **DOWN** arrows to move cursor and **LEFT** and **RIGHT** arrows to change values. Press the **SAVE** button.

3.1.5 VIDEO	DEFAULT LINE STANDARD 525 FAIL MODE FREEZE FRAME
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ALARMS

10. Press **LEFT** arrow to **3. SERVICE 1 SERVICE 0001**. Press **DOWN** arrow to **5. ALARMS NONE** Press **RIGHT** arrow to **5.1 ALARMS**. Press **EDIT** button and use the **LEFT** and **RIGHT** arrows to move cursor and the **UP** and **DOWN** arrows to change values to **9.0 E-3**. Use the **RIGHT** arrow to move cursor and the **UP** and **DOWN** arrow to change value to **SET ALARM ONLY**. Press the **SAVE** button.

5.1 ALARMS	IF BER EXCEEDS 9.0 E-3 SET ALARM ONLY
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11. Press **DOWN** arrow to **5.2 ALARMS**. Press **EDIT** button and use the **DOWN** arrow button to change value to **SET ALARM ONLY**. Press the **SAVE** button.

CHECKING BER

12. Use the arrow buttons to navigate to **2.1 INPUT QUALITY** to check the **BIT ERROR RATE (BER)**.

BER THRESHOLD = 9.0 E-3

2.1 INPUT QUALITY	PV BER -1 - 3 -5 1.0 E-8 ██████████ ██████████ ██████████ ██████████
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(Example BER)

*APTN is an encrypted service. Following the TT1260 installation/configuration, provide to **APTN Technical Support** the location and unit serial number so the TT1260 can be enabled for the contracted services.*

Tel: +44 (0)20 7410 5220 (0900 to 1700 GMT)
Fax: +44 (0)207 410 5388
Email: aptn.techsupport@ap.org

For further assistance in North America, please contact:
CRANBURY TECHNICAL CENTER: 609 860 7239
BROADCAST NEWS CENTER: 202 736 1131

DIGITAL SETTINGS

Digital Video can be accessed through the BNC connectors on the rear panel labelled **SDI 1** and **SDI 2**. See *Fig.1* on page 3 of this document.

Digital Audio can be set through the front panel at **MENU 3.2.3** for **AUDIO 1** and **MENU 3.3.3** for **AUDIO 2**. Output Format selections are IEC958 AES3 or **AC3**. Routing Selections are **STEREO, MIXED TO BOTH, LEFT TO BOTH, or RIGHT TO BOTH**.

3.2.3	AUDIO 1	DIGITAL OUTPUT AES3 ROUTING STEREO
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MENU 3.2.5 for **AUDIO 1** and **3.3.5** for **AUDIO 2** edits the **AC-3** down mix parameter. Selections are **SURROUND STEREO** or **CONVENTIONAL STEREO**.

3.2.5	AUDIO 1	AC3 DOWNMIX METHOD SURROUND STEREO
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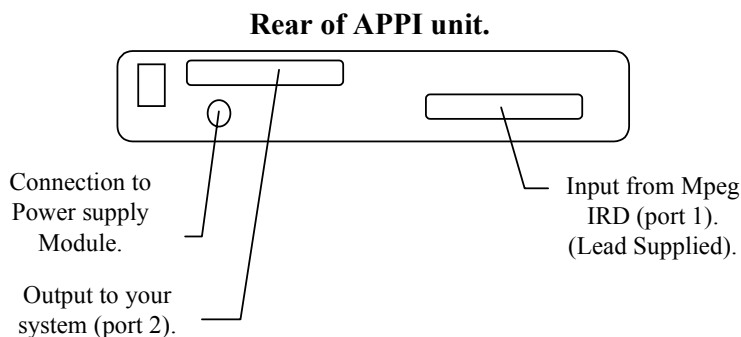


Associated Press Printer Interface (APPI)



A guide to installing your new “APPI” **Associated Press Printer Interface.**

This small box of electronics is intended to be connected between your APTN MPEG digital IRD and your Newsroom computer system, or serial input printer. It takes data from the RS232 data output socket at the back of the IRD (9 pin “D” type) and buffers it in order to convert the data into a format suitable for your newsroom computer system. The converted data is fed out of the 25 pin “D” type connector (labelled “port2/printer”) on pin 2 (and return via pin 7) in serial format @ 9600 Baud, 8, N, 1. The Data should be of the correct format (ANPA) to connect directly to a serial port on your newsroom computer system.



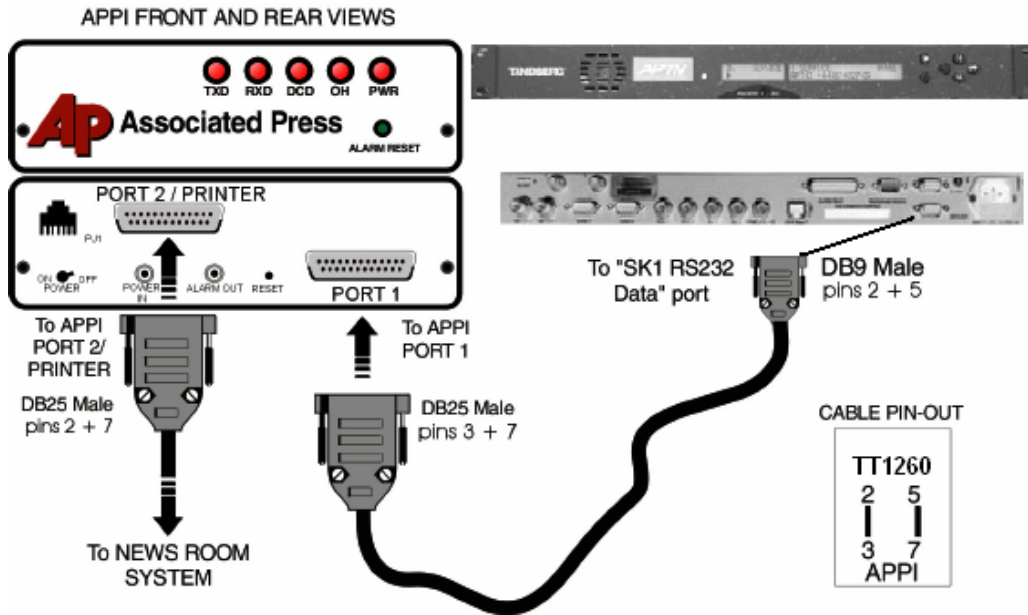
If the “wire services” are not to your requirements, the box’s configuration can be changed via an “over the air” download. You may contact us and we can change the configuration for you. Supplied with this unit are:

- **A connecting leads.**
- **A power supply suitable for operation in your territory.**

Note:

More information on the APPI boxes can be found in Appendix A at the back of this manual.

Typical TT1260 Installation



The default data format from the APPI when shipped to you is:

RS232 9600/8/N/1 and is ANPA script format.

The data is sent with the video and audio, so 24hr connection to the IRD must be maintained.

APPI = Associated Press Printer Interface

AP Television News

Script Data Format



APTN Script Delivery Format

APTN utilizes the NAA/ANPA and IPTC format structure to deliver scripts to the International Broadcast industry. Data is delivered at 9600bps via a smart interface device called an APPI. This device converts the AP wire feed to the various formats, codes and speeds. Delivery is available at 9600bps (default), 4800bps, 2400bps, and 1200bps. 9600bps is recommended. Data is transmitted with 1 start bit, 8 data bits, no parity, and 1 stop bit. The NAA/ANPA and IPTC format structure is selectable (see Appendix A). The following syntax structure is followed for each format:

NAA/ANPA Format (ANPA Bulletin 1312)

```
<SYN><SYN><SOH>v0000<TFI>{selector}<LF>
{priority}<SP>t<DC2><SP>{Keyword}<SP>{Filing Date}<SP>
{Word Count}<CR><LF>
<STX>
{system addresses, if any}<CR><LF>
^AP-APTN feed start time, if applicable}:{rundown or script name}-
{version}<CR><LF>
{text priority, if applicable, such as ^URGENT< or ^BULLETIN<, then <CR><LF>}
```

... text ...

{If a rundown, a feed time is appended, such as
B-u-l-l-e-t-i-n begins at xxxx GMT.}

```
<ETX>{date and time}<EOT>
```

IPTC Format

```
<SOH>v0000<SP>{priority}<SP>txx<SP>{word count}<SP>{selector}<CR><LF>
{keyword/catch-line}<CR><LF>
<STX>
{system addresses, if any}<CR><LF>
^AP-APTN-{feed start time, if applicable}:{rundown or script name}-
{version}<CR><LF>
{text priority, if applicable, such as ^URGENT< or ^BULLETIN<, then <CR><LF>}
```

... text ...

{If a rundown, a feed time is appended, such as
B-u-l-l-e-t-i-n begins at xxxx GMT.}

```
<ETX><EOT>
```


TECHNOLOGY DEPARTMENT

The selector code should be used to identify APTN copy in the remote newsroom computer system. These codes reside in the "selector code field" of the NAA/ANPA and IPTC header .

The selector codes used to identify APTN copy are as follows:

Service	Rundowns	Scripts
Global Advisories:	1tvgr	1tvgs
News Updates/Advisories:	1tvkr	1tvks
Europe:	1tver	1tves
Asia Pacific:	1tvar	1tvas
Australia/New Zealand:	1tvsr	1tvss
Latin America:	1tvlr	1tvls
North America:	1tvnr	1tvns
Arabic:	1tvqr	1tvqs
Entertainment:	1tvbr	1tvbs
General News Service:	1tvfr	1tvfs
Horizons:	1tvhr	1tvhs
Technology:	1tvdr	1tvds
SNTV:	1sngr	1sngs
SNTV Arabic:	1snqr	1snqs
AP Asian Newswire:		asian
AP European Newswire:		-----
AP Headlines		glbhd
AP Summaries		glbsm
EBU:	1tveb	n/a

The priority field identifies the urgency of the story. An APTN item received with a "u" or "b" priority should cause a pop-up and audible alarm in the remote newsroom system. In addition, an item received with a "u" priority should dump into an APTN urgent folder and an item received with a "b" priority should dump into an APTN bulletin folder. Priority codes are used by the remote newsroom systems as follows :

Type	NAA/ANPA	IPTC
Flash (highest, seldom used)	f	1
Bulletin (prime news)	b	2
Urgent (just under prime news)	u	3
Regular (routine)	r	4
Deferred (lowest, delayed sending)	d	5

NOTE : Default Delivery Configuration for APTN

* ANPA Format @ 9600bps, 1 start / 8 data / 1 stop, no parity

* APTN Data should dump into :

1. The “All-wires” folder.
2. Newly created “APTN” folder.
3. “u” priority items into “APTN Urgent” folder.
4. “b” priority items into “APTN Bulletin” folder.

For Arabic transmission, the ASMO 708 Arabic DOS code page is used.

AP Television News

Satellite Distribution



APTN SATELLITE DISTRIBUTION DETAILS

Satellite	ASIASAT 2
Orbital Position	100.50 East
APTN Transponder Number	5B
Assigned Bandwidth	9 MHz
Downlink Frequency	3,799 MHz
Downlink Polarisation	Horizontal

Satellite	Eutelsat W1
Orbital Position	10 East
APTN Transponder Number	F4
Assigned Bandwidth	9 MHz
Downlink Frequency	12,629.6 MHz
Downlink Polarisation	Vertical

Satellite	AMC 3
Orbital Position	87.00 West
APTN Transponder Number	1
Assigned Bandwidth	9 MHz
Downlink Frequency	3732.5 MHz
Downlink Polarisation	Horizontal

Satellite	Intelsat 805
Orbital Position	304.5 East
APTN Transponder Number	11
Assigned Bandwidth	9 MHz
Downlink Frequency	3750.3 MHz
Downlink Polarisation	Vertical

APTN Technical Support

For all queries regarding technical matters APTN provides an efficient client assistance service.

Please contact our Technical Support department with any reception queries or problems.

Tel: +44 (0)20 7410 5220 (0900 to 1700 GMT)

Fax: +44 (0)207 410 5388

Email: aptn_techsupport@ap.org

Please contact Client Support (Newsroom) with any non-technical queries or problems.

Tel: +44 (0)20 7482 7600

At other times our MCR can be contacted on **+44 (0)20 482 7575**