



QUICK START GUIDE Torpedo[™] DVB-S/S2 or DVB-T/T2 to IP Gateway Appliance

This Quick Start Guide summarizes the basic steps required to install and configure the Torpedo DVB-S/S2 or DVB-T/T2 to IP Gateway Appliance (single chassis, as shown below*) to stream digital broadcasts onto an IP network. Please refer to the User's Guide or the online help (available from the Web Interface) for detailed information.



* The color of your Torpedo may be different from those pictured above.

Installing the Torpedo

- 1. Unpack the box and visually inspect the package contents for any evidence of shipping damage. [See Important Notice for list of contents.]
- 2. Install the Torpedo as a desktop unit on a flat, well-ventilated surface.
- 3. Connect the power cable.



CAUTION Always use the AC power cord and power supply provided with the unit. Connect the power supply *first* to the chassis and then to the AC source.

Make sure the connector is properly inserted and locked to avoid intermittent power problems.



Connecting the Torpedo to the Network

1. Connect the Torpedo's Ethernet port to the IP network using an Ethernet UTP cable (Type Cat 5 or higher) (DVB-S/S2 shown in following example).



To connect the serial interface (where applicable), please refer to the User's Guide.

Connecting RF Input to the Torpedo

- 1. Connect the input cable from the DVB antenna or satellite dish to the Torpedo's RF Input, using the appropriate connector(s).
 - Torpedo DVB-T/T2: For RF terrestrial (DVB-T/T2) signals, use a 75 ohm IEC aerial connector (DVB-T/T2CAM example shown below).
 - Torpedo DVB-S/S2: For SD and HD satellite (DVB-S and DVB-S2) signals, use a 75 ohm Type F Female connector.



NOTE With the DVB-T/T2 Torpedo, it is possible to cascade the RF Input to other Torpedoes. To do so, connect the RF Output of the first Torpedo to the RF Input of the subsequent Torpedo.

However, signal integrity and quality when cascading is limited. Each time you cascade the RF Input from one Torpedo to the other, there is a loss in signal strength. Therefore, you cannot cascade indefinitely. (The loss is related to the original input signal.)

Accessing the Torpedo

- 1. Power on the Torpedo.
- 2. The Torpedo comes pre-configured with the following default settings:

IP Address	Subnet Mask	Gateway	Username	Password
10.5.1.2	255.255.0.0	10.5.0.1	admin	manager

- 3. Open a Web browser, type the IP Address for the Torpedo into the URL address bar, and press Enter.
- 4. Log in to the Torpedo Web Interface, using the default username and password.

Configuring the LNB and DiSEqC settings (Dish Setup, DVB-S/S2 only)



NOTE There is no LNB configuration on DVB-T/T2 systems, so Dish Setup is not required.

1. Click SYSTEM from the main menu and then click DISH SETUP from the sidebar menu.

The Dish Setup page opens, as shown in the following example.

Η		System •	Network 🔹	Administration Help Logout
	Service List			A
	Multiplex List			
	Dish Setup	LNB settings		
	Scan Setup	Local oscillator frequency	Low Band	9750000 kHz Set this to the LO frequency of the LNB attached to your satellite dish, for dual band LNBs set the low band frequency here.
	Advanced		High Band	10600000 kHz Set this to 0 for a single band LNB, or to the high band LO frequency for a dual or universal LNB.
		Line length compensation		If the distance between this unit and the dish is excessively long, it my be necessary to boost the voltage supplied to the LNB. Check this box to provide that boost. Generally this is not needed.
		DiSEqC settings If your RF network contains DISE	qC switches then it m	may be necessary to set the switches here to configure the RF path.
			DiSEqC 1.1	1/16 🔽
			DiSEqC 1.0	1/4 💌
			Tone Burst	
			Positioner	r 1
		Save changes	Cancel	4

- 2. Specify the Low Noise Block (LNB) settings, as required for your system.
- 3. If your RF network contains DiSEqC (Digital Satellite Equipment Control) switches, it may be necessary to set the switches here to configure the RF path, i.e., to specify which RF source reaches the Torpedo.



4. To save your changes, click **Save Changes**.

NOTE A service scan is required when the Torpedo is first installed. A service scan updates the list of services and multiplexes that the unit has stored. It can take several minutes and while underway, no services will be streamed. To do so, follow the steps in one of the following two sections (depending on whether you are using the Torpedo DVB-S/S2 or DVB-T/T2).

Starting a Service Scan (DVB-S/S2)

1. Click SYSTEM from the main menu and then click SCAN SETUP.

The Scan Setup page opens (as shown in the following example). From here, you can start a service scan and set the parameters used for scanning.

	System .	Network 🔹	Administration •	Help 🔹	Torpedo
Service List					<u></u>
Multiplex List					R#
Dish Setup	Automatic	Check this to use scanning p	arameters based on the satellite orbi	tal position below.	
Scan Setup	Orbital position	28.2E: Eutelsat 28A,	Astra 1N,2A,2F	•	
Service Advert. Advanced		When using the automatic op mode is not used, a valid free signal (DVB-S or DVB-S2) mu used to expand the list of tran	tion, a list of known transponders (uency, symbol rate and polarisation ist also be set. If valid network infor rsponders that will be searched.	for the selected orbital pos n for a transponder must b rmation is being broadcast	tion will be searched. If automatic be configured below. The type of on the transponder then it will be
	Frequency	10714000	kHz		
	Symbol rate	22000000	Sym/s		
	Polarisation	Horizontal			
	Standard	DVB-S DVB-S2			
	Quick search	A quick search will find most the quick option, scanning w	services but may miss some if the in ill take longer but all available infor	formation provided by the mation will be used to try t	e satellite is incomplete. By not using o locate services.
	Scan dwell period	30 Set the maximum number of	seconds to wait for network and se	rvice information at each t	uned frequency.
	Scan logging	Check this to record detailed	information about service scans in	the event log.	
	Save changes	Save and start scan	Cancel		

- 2. To enable or disable Automatic scanning, check or uncheck the Automatic checkbox.
- 3. When scanning in Automatic mode, you only need to select the satellite Orbital position.

-or-

If Automatic scanning is disabled, you must provide the following information:

- Frequency, Symbol rate and Polarisation for a known transponder.
- Standard (i.e., the type of signal, either DVB-S or DVB-S2).
- 4. To save your changes and start the service scan, click **Save and start scan**.

Starting a Service Scan (DVB-T/T2)

1. Click SYSTEM from the main menu and then click SCAN SETUP.

The Scan Setup page opens (as shown in the following example). From here, you can start a service scan and set the parameters used for scanning.

Η		<u>System</u> •	Network 🔹	Administration •	Help 🔹	
	Service List Multiplex List					ß
	Conditional Access	Automatic	Check this to use scanning	parameters based on the selected co	untry below.	
	Scan Setup	Country	United Kingdom	matically use the correct scanning o	arameters.	
	Service Advert. Advanced	Frequency bands	Start (Hz) End 474000000 8500000 Add Remove Custom single or band freq	(Hz) Bandwidth 00 8MHz -	will be used if the automatic	country based options are not used.
		Scan dwell period	30 Set the maximum number of	f seconds to wait for network and se	ervice information at each tu	uned frequency.
		Scan logging	Check this to record detaile	d information about service scans in	the event log.	
		Save changes	Save and start scan)		

- 2. To enable or disable Automatic scanning, check or uncheck the Automatic checkbox.
- 3. When scanning in Automatic mode, you only need to select the country.

-or-

If Automatic scanning is disabled, you must enter the Start and End frequencies and select the Bandwidth.

4. To save your changes and start the service scan, click **Save and start scan**.

Configuring the Channels for a Multiplex

1. Once the scan is complete, click **SYSTEM** from the main menu and then click **MULTIPLEX LIST**.

The Multiplex List (as shown in the following example) displays information on the currently tuned multiplex, as well as the other available multiplexes for this Torpedo.

							E
Multiplex List	Currently tuned multiplex						
Dish Setup	Network name	Frequency	Standard	SNR	Services	RF status	Data rate
Scan Setup	Globecast	12.1480 GHz H	DVB-S	0 dB	20	No signal	0.00 kbit/s
Service Advert.	Other available multiplexes						
Advanced	Network name	Frequency	Standard	SNR	Services		
	Globecast	11.7890 GHz V	DVB-S2	0 dB	16		
	RRSat Global Comunications Network	11.8360 GHz H	DVB-S	9 dB	18		
	STN Network	11.8560 GHz V	DVB-S2	11 dB	19		
	Globecast	11.8760 GHz H	DVB-S	9 dB	15		
	Globecast	11.8950 GHz V	DVB-S	12 dB	13		
	RRsat Global Network	11.9290 GHz V	DVB-S2	10 dB	22		
	11934_V	11.9340 GHz V	DVB-S	10 dB	12		
	RRsat Global Network	11.9540 GHz H	DVB-S	12 dB	22		
	STN Network	11.9730 GHz V	DVB-S	12 dB	16		
	Globecast	11.9910 GHz V	DVB-S2	12 dB	18		
	ABSCBN	12.0120 GHz V	DVB-S2	11 dB	18		
	STN Network	12.0320 GHz H	DVB-S	11 dB	11		
	Globecast	12.0510 GHz V	DVB-S	10 dB	53		
	Globecast	12.0530 GHz V	DVB-S2	10 dB	53		
	RRsat Global Network	12.0595 GHz H	DVB-S2	10 dB	25		
	Globecast	12.0700 GHz H	DVB-S	12 dB	9		
	ABSCBN	12,0900 GHz H	DVB-S2	12 dB	21		

- 2. To view and configure the channels for a multiplex, click the **Frequency** link for the multiplex.
- 3. On the Multiplex Information page (shown following), you can enable up to 15 individual channels (from a single RF multiplex) for the Torpedo to stream.

Service List											6
Multiplex List Mul	tiple	ex information									N
Dish Setup <u>« Prev</u>	ious m	ultiplex									
Scan Setup Deta	ls										
ervice Advert. Mult	iplex	Network name	Frequ	encv		SNR	Leve		BER	Cu	urrently
Advanced 20 of	20	Globecast	12.148	IO GHz H		0 dB	0 dBr	n 0	x10e-7	-7 Yes	
Servi	ces										
Enat	led	Name		Encrypted	Туре		Address	Port	TTL	DSCP	LCN
Ch	.300	GlobeCast 1 No present event information		e	Television	I		1234	64	CS0	
Ch	.301	Saudi-Quran No present event information		ſ	Television	ſ		1234	64	CS0	
Ch	.302	Saudi-Sunnah No present event information		5	Television	ſ		1234	64	CS0	
Ch	.303	Al Jazeera English No present event information		5	Television	ſ	230.191.1.1	1911	64	CS0	
Ch	.304	GlobeCast 12 No present event information			Radio	ſ		1234	64	CS0	
Ch	.305	Bahai Radio No present event information		ſ	Radio	ſ		1234	64	CS0	
Ch	.306	Channel 25 No present event information			Television	I		1234	64	CS0	

4. For each channel, you will need to provide network information to reach the IP target desired, including IP Address, Port, TTL (Time to Live), DSCP (Differentiated Services Code Point), and optionally, LCN (Logical Channel Number).

- 5. You can also change the currently tuned multiplex, for example, to stream a service which is not in the currently tuned multiplex.
- 6. To save your changes, click **Save Changes**.

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To Validate that the Torpedo is Properly Streaming

1. Click ADMINISTRATION from the main menu and check that Streaming services are listed on the Status page (as shown in the following example).

	° System ●	Network 🔹	Administration •	Help 💿	
Status					
Remote Monitoring	Hostname Description	Torpedo 084P015-002G Rev. A:	: DVB-S2 satellite		No. 1
Unit Locator	Serial number	HAI-021131010017			
Software Upgrade	RF status Orbital position	Locked at <u>11.7890 GH</u> 97.0W	<u>z V</u> 28125000 2/3 QPSK DVB-S		
Event Log	Signal to noise ratio	11 dB			
Save / Load Settings	Signal level Bit error rate LNB status Off air data rate	-25 dBm 0 x 10e-7 13V, 22kHz tone 34.74 Mbit/s			
	Streaming services	Telesur: No pre CNC World Engl	sent event information lish: No present event information		
	Last scan	Detailed automatic sca	n of 97.0W (97.0W: Galaxy 19)		
	Stored services	401 in 20 multiplexes			
	l'emperature	28 °C			
	IP address	10.6.180.190			
	MAC address	5C:77:57:00:06:79			
	Ethernet link speed	100BaseTx full duplex			
	Software version Command set version	2.2.16996 1.9			

For More Information

Contact Haivision Technical Support via our Support Portal on our website at: http://www.haivision.com/support/

Or you may use the phone number or email address listed below:

North America:	Toll Free: 1.877.224.5445
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