HDSL Quick Installation Guide
for ADTRAN FT1 DP and FNID

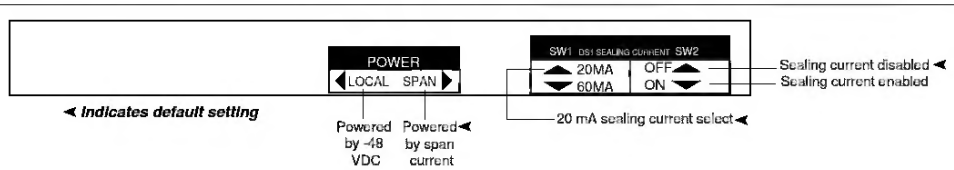
PRACTICES

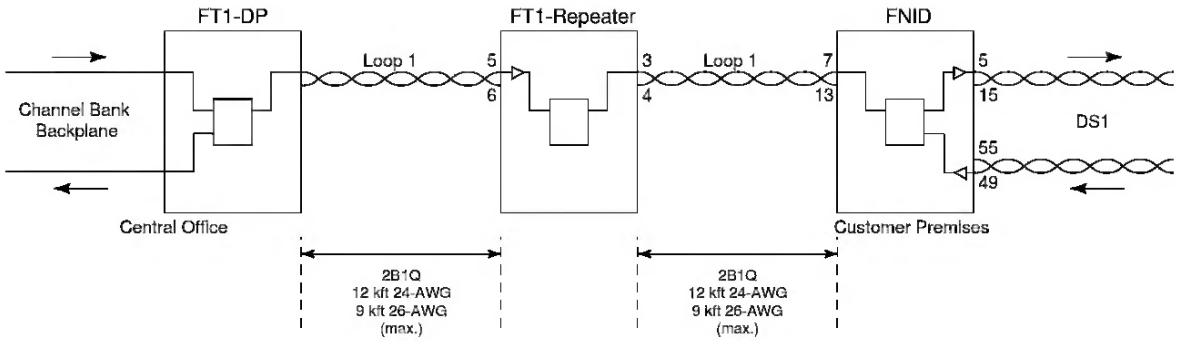
Three eight-position switch packs (SW1, 2, 4) and two four-position switch packs (SW3, 5) are used to configure FT1 DP mode of operation as listed in the table below. Refer to ADTRAN Installation/Maintenance practices for more information.

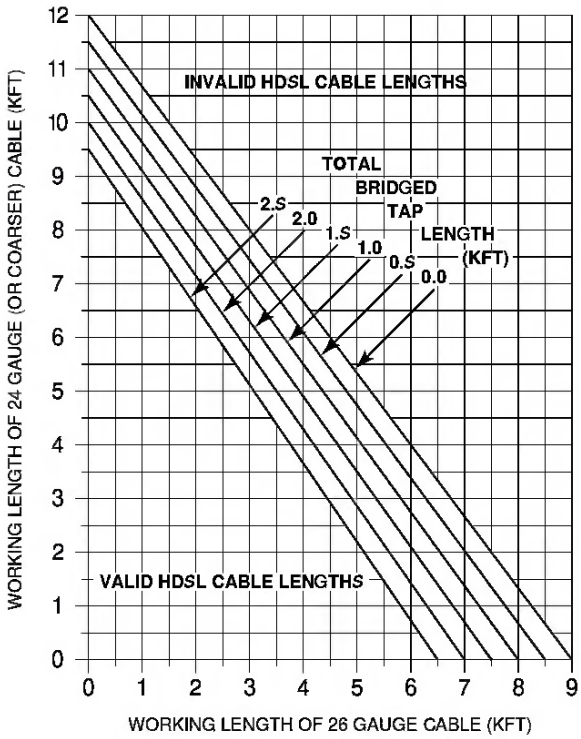
Option Settings
(arrows indicate default settings)

Switch	Function	Description
SW1-1	Channel Select	Selects between alternating and contiguous DS0 channels.
Closed	Alternate	
➤ Open	Contiguous	
SW1-2	Auto Code Detect	When this switch is closed, the unit automatically detects the line code as B8ZS or AMI.
Closed	Auto	
➤ Open	Manual	
SW1-3	Manual Code Select	When SW1-2 is open, SW1-3 open selects B8ZS line code, while SW1-3 closed selects AMI.
Closed	AMI	
➤ Open	B8ZS	
SW1-4	Auto Frame Detect	When this switch is closed, Auto Frame Mode detection is enabled and the unit selects between SF and ESF modes automatically. When open, SW1-5 manually selects the framing mode.
➤ Closed	Auto	
Open	Manual	
SW1-5	Framing	When SW1-4 is open, SW1-5 closed selects SF. SW1-5 open selects ESF.
Closed	Superframe Format (SF)	
➤ Open	Extended Superframe Format (ESF)	
SW1-6	Latching Loopback	This switch is used to enable or disable latching loopbacks.
Closed	Enabled	
➤ Open	Disabled	
SW1-7	Loopback Timeout	SW1-7 is used to enable or disable automatic loopback timeout.
Closed	20 Minutes	
➤ Open	None	
SW1-8	Loopback Keep Alive	Sets the data pattern sent to the customer upon FNID network loopback.
Closed	AIS	
➤ Open	All 1s, framed	
SW2-8, 2-7	DS1 Transmit Level	The DS1 signal level delivered to the customer through the FNID may be selected as one ot four values: 0, -7.5, -15, or -22.5 dB.
➤ Open, Open	0 dB	
Open, Closed	-7.5 dB	
Closed, Open	-15 dB	
Closed, Closed	-22.5 dB	
SW3-1	Idle Code Detect	When SW3-1 is closed, auto idle code detection is enabled and the unit selects between 7F (Hex) and FF (Hex).
Closed	Auto	
➤ Open	Manual	
SW 3-2	Idle Code	When SW3-1 is open and SW3-2 is closed, selects FF (Hex). When SW3-2 is open, selects 7F (Hex).
➤ Closed	FF	
Open	7F	
SW4-1-SW4-8	Channels 1-8 A/B Signaling	This switch enables or disables A/B signaling for Channel 1-8 of the selected FT1 channels.
Closed	Enabled	
➤ Open	Disabled	
SW5-1-SW5-5	Channels 9-12 A/B Signaling	This switch enables or disables A/B signaling for Channels 9-12 ot the selected FT1 channels.
Closed	Enabled	
➤ Open	Disabled	

FNID
SW1, SW2
20 mA, 60 mA
Oft, On







HDSL Loss Values

(200 kHz cable loss in dB/kft at 135Ω)

Cable Gauge	Cable Type	Temperature: 68°	90°	120°
26	PIC	3.902	4.051	4.253
26	Pulp	4.030	4.179	4.381
24	PIC	2.863	2.957	3.083
24	Pulp	3.159	3.257	3.391
22	PIC	2.198	2.255	2.333
22	Pulp	2.483	2.45	2.629
19	PIC	1.551	1.587	1.634
19	Pulp	1.817	1.856	1.909

Loop Insertion Loss Data

Frequency (Hz)	Maximum Loss (dB)
3,000	12.0
10,000	15.0
50,000	25.5
100,000	30.0
150,000	32.75
200,000	35.25

NOTE *These approximations are to be used as guidelines only and may vary slightly on different loops. Adhering to these guidelines should produce performance in excess of 10^{-7} BER.*

ADTRAN Customer Service:

ADTRAN Telco Technical Support ..... (800) 726-8663
Standard support hours ..... Monday-Friday 7 a.m. - 7 p.m. CST
Emergency support ..... 7 days/week, 24 hours/day
Sales ..... (800) 827-0807
RMA (repair service) ..... (205) 963-8722

Repair and Return Address:

ADTRAN, Inc.
Customer Service Department
901 Explorer Boulevard
Huntsville, Alabama 35806-2807