



# ***Micro/5 ADT Modem Interface Board***

## **Introduction**

The ADT Modem Interface board is designed to connect to an RS-232 data source to allow a Micro/5 to communicate with ADT equipment. While the board is designed to plug into the Micro/5, it can also be used remotely from the Micro/5.

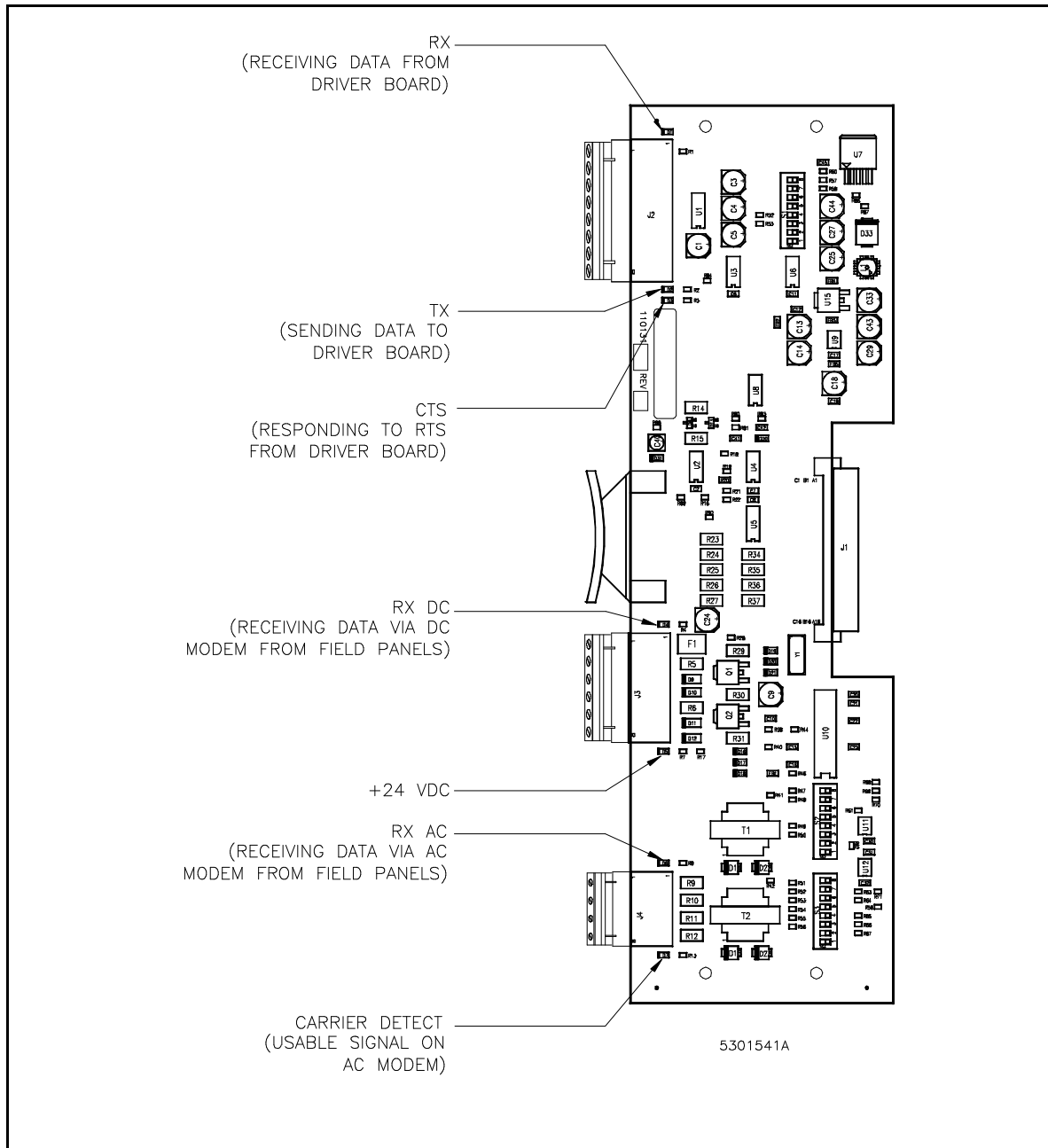
The board features both a 300 bps modem (the AC portion of the driver) and a current loop driver (the DC portion of the driver).

The board can be set up to use both the AC and DC drivers at the same time and at the same speed (300 bps).

The board is powered by +12 VDC either from the Micro/5 or externally when used remotely.

## LEDs

The Modem Interface board uses six red surface-mounted LEDs to indicate the status of selected signal lines as shown in Figure 1 below.



**Figure 1: Layout of the ADT Modem Interface Board**

## External LEDs

Although the ADT Polling Interface board and the ADT Modem Interface boards have a number of LEDs that show the status of the transmit, receive, and RTS/CTS signals, there may be some cases where the Micro/5 is to be mounted above a ceiling or in a similarly hard-to-reach location and it would be desirable to be able to at least monitor the status of the transmit and receive LEDs. Pins 5 and 6 have been provided on connector J3 on the ADT Modem Interface board for this purpose. To use this feature, wire two LEDs as shown in the figure below.

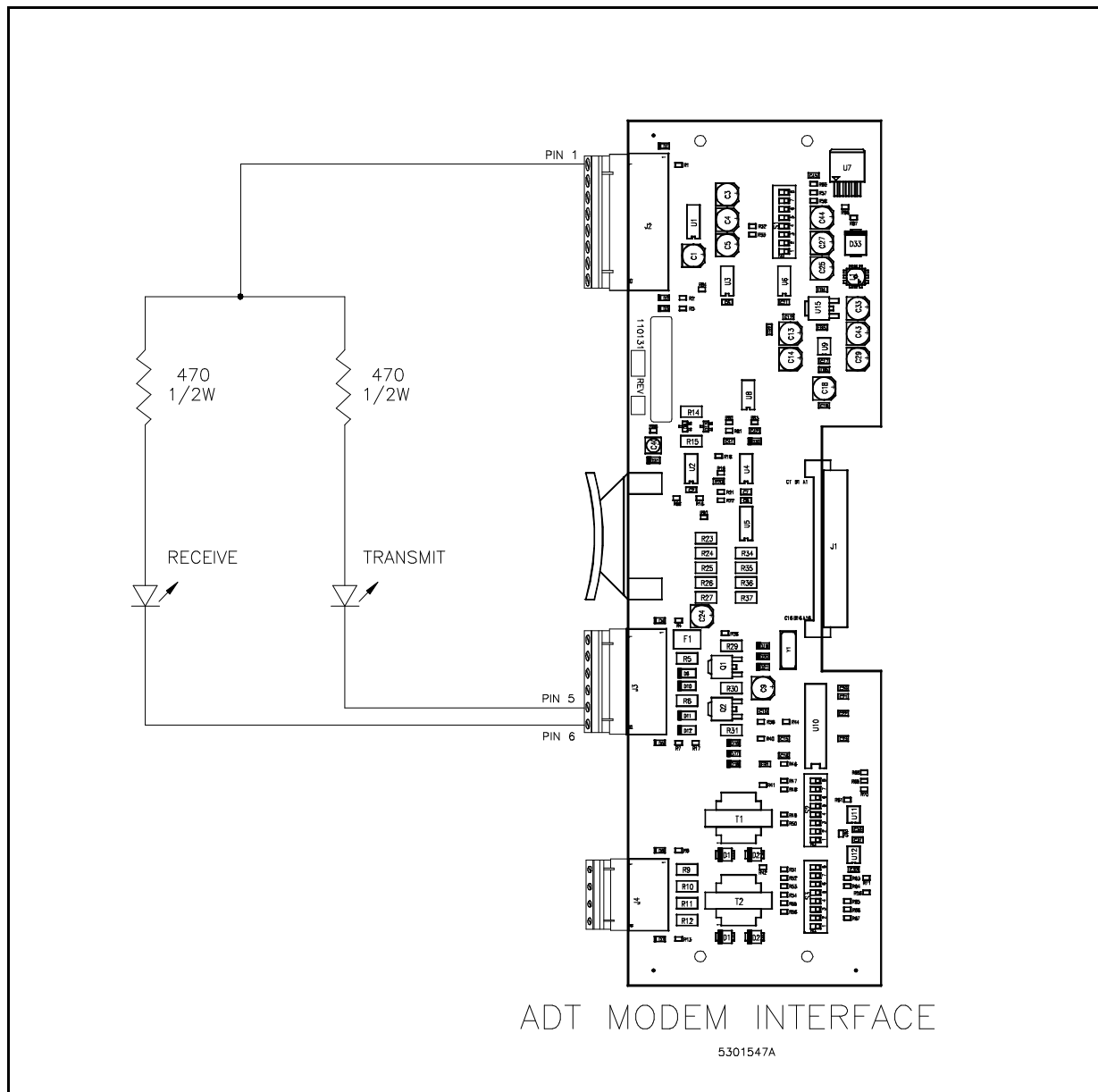
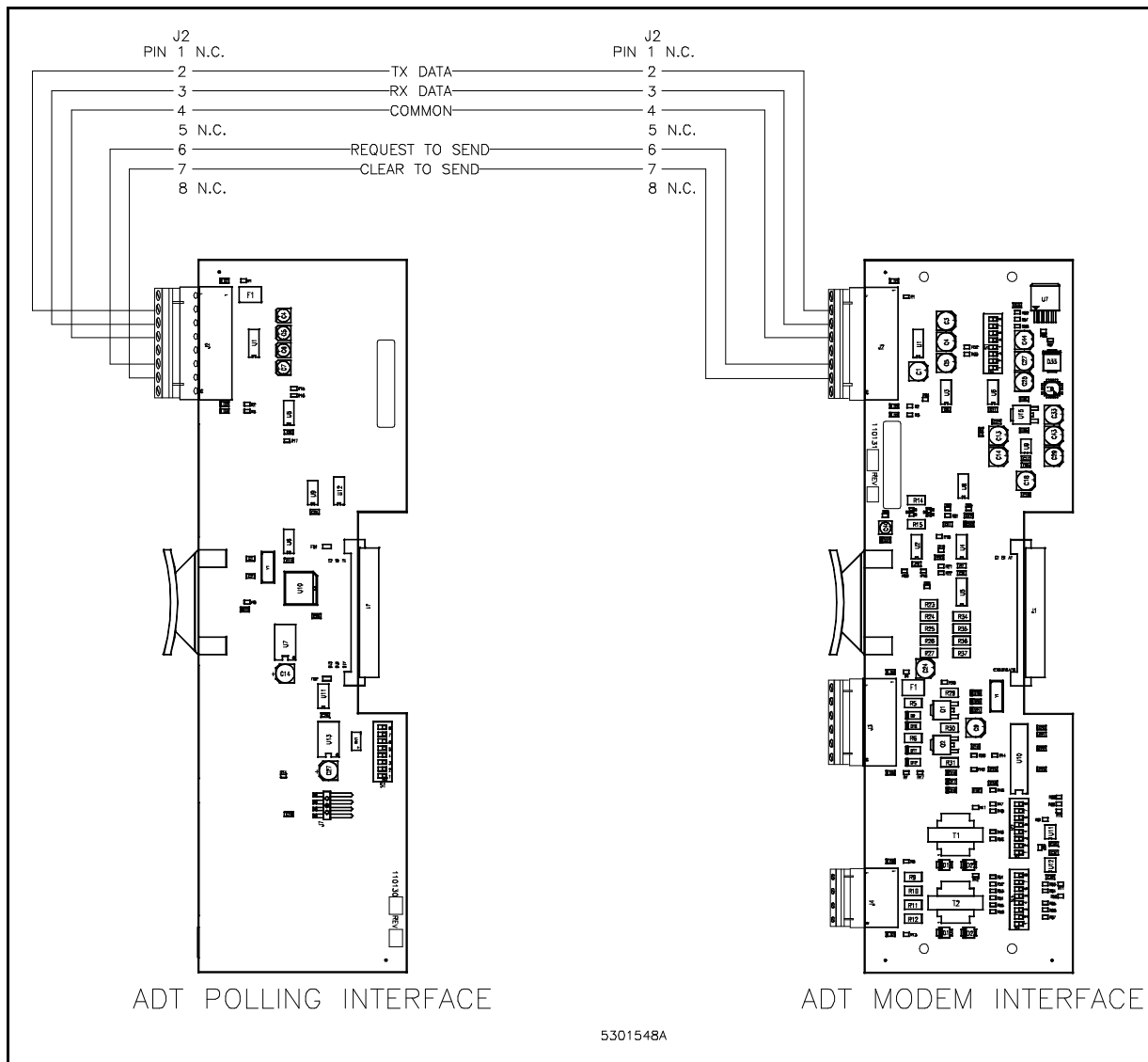


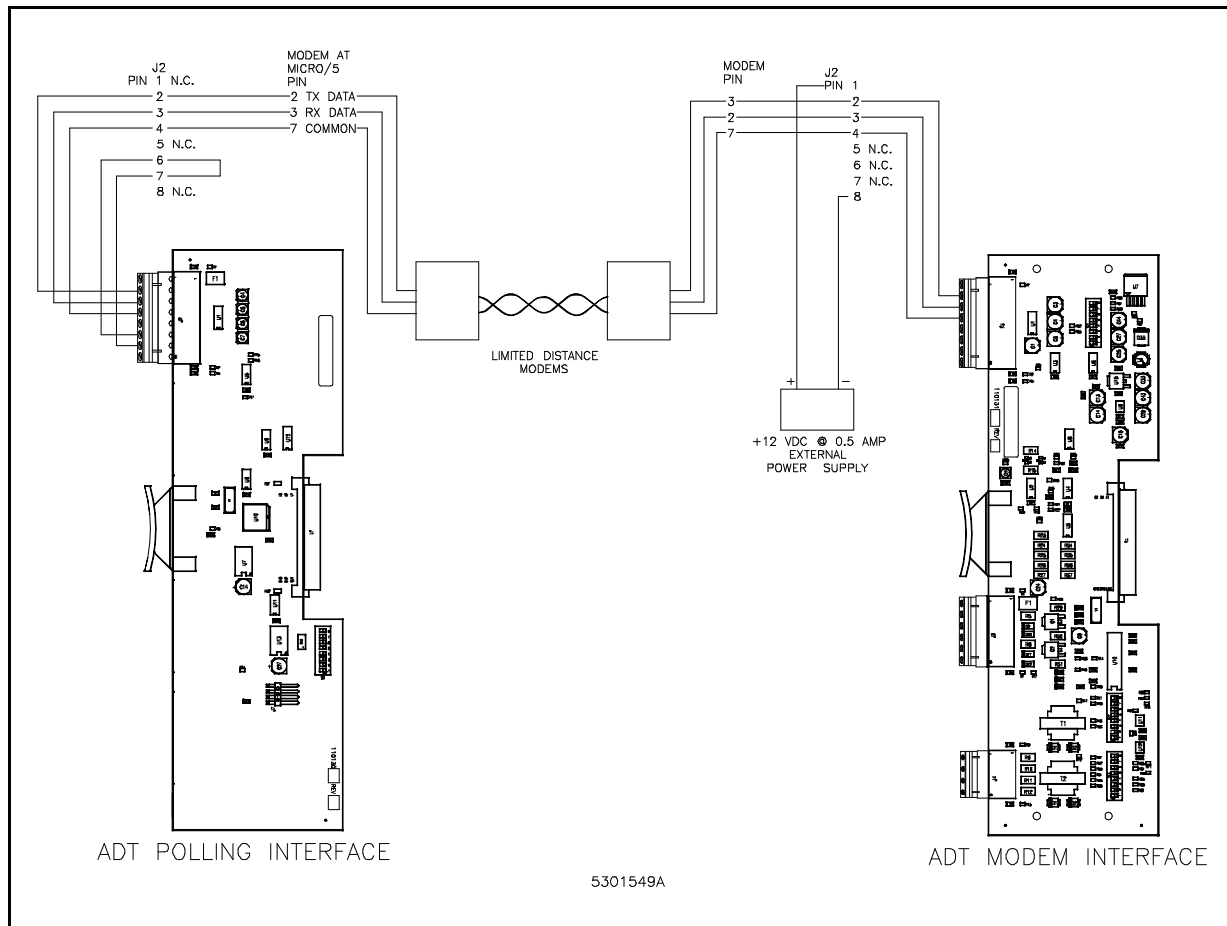
Figure 2: Connecting External LEDs

# Connecting the ADT Modem Interface Board to the ADT RP Board

The ADT Modem Interface board must be wired to the ADT Polling Interface board. There are two ways this can be done. First, if the ADT Modem Interface board is to be used in the Micro/5 cabinet, then five connections must be made between connector J2 of the ADT Polling Interface board and J2 of the ADT Modem Interface board as shown in Figure 3. If the ADT Modem Interface board is to be used remotely from the Micro/5 cabinet then the ADT Polling Interface and the ADT Modem Interface boards must be connected using limited distance modems as shown in Figure 4.



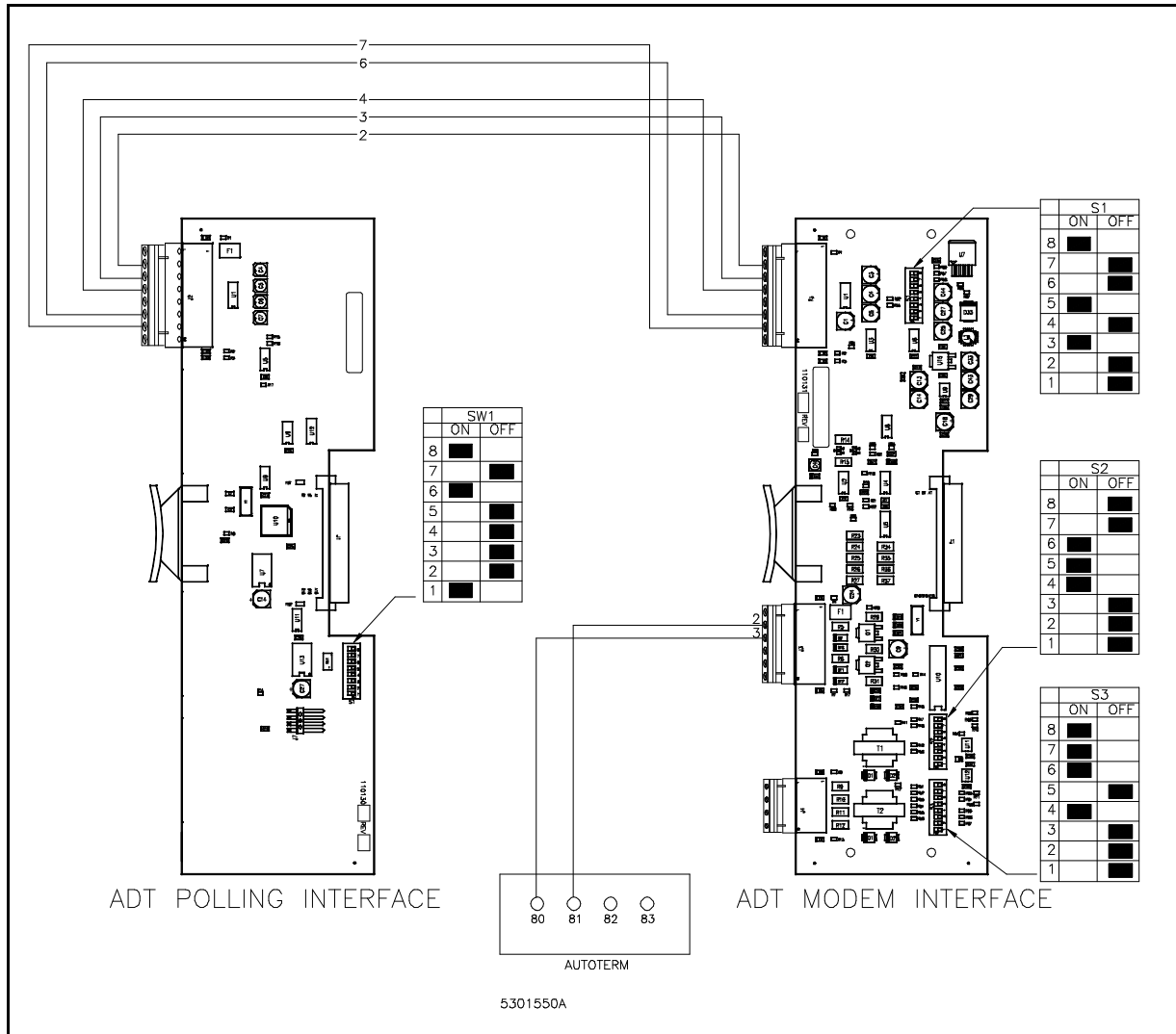
**Figure 3: Connecting the ADT Modem Interface Board to the ADT Polling Interface Board in the Micro/5**



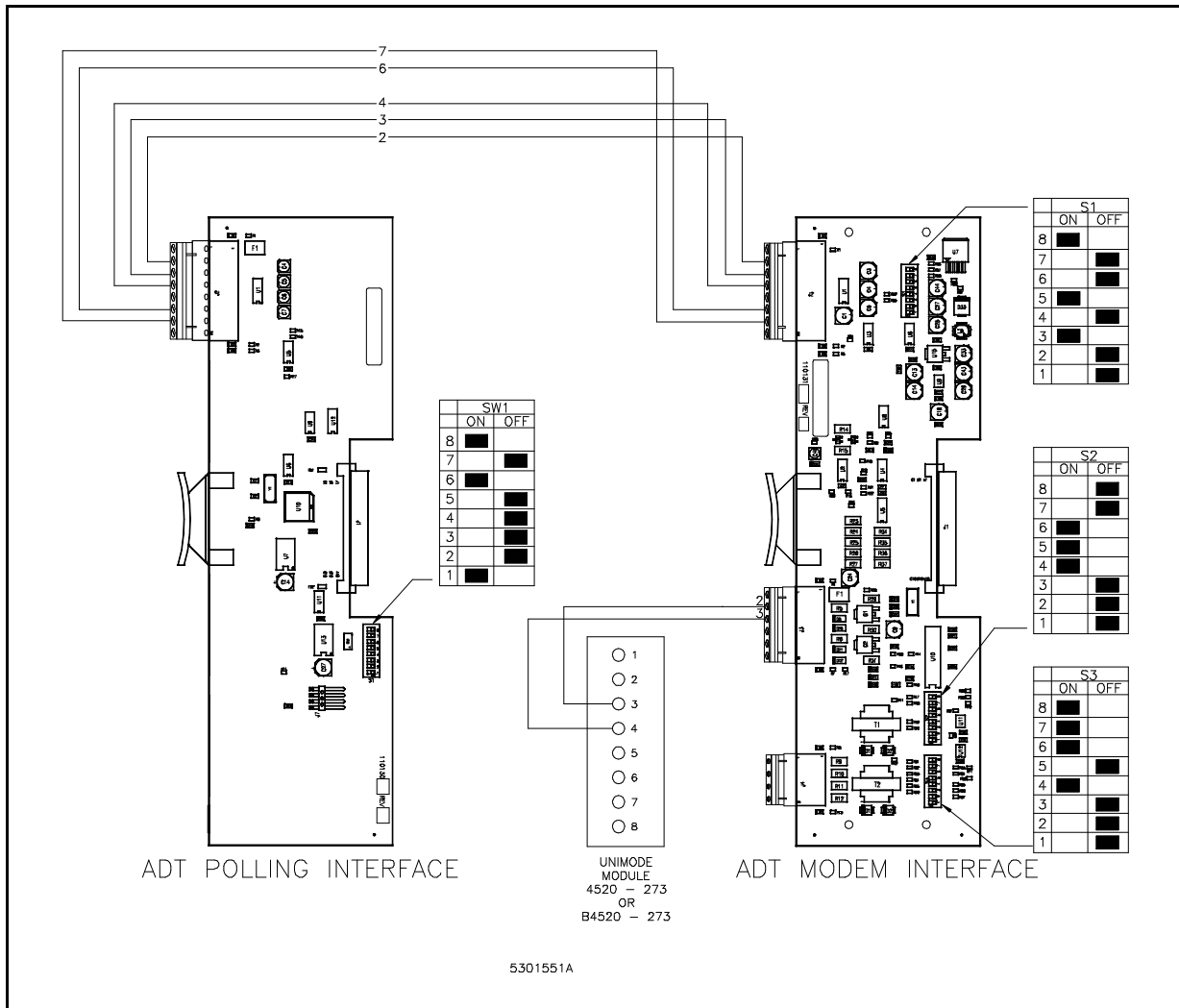
**Figure 4: Connecting the ADT Modem Interface Board Remotely to the ADT Polling Interface Board**

# Installers' Wiring Diagrams

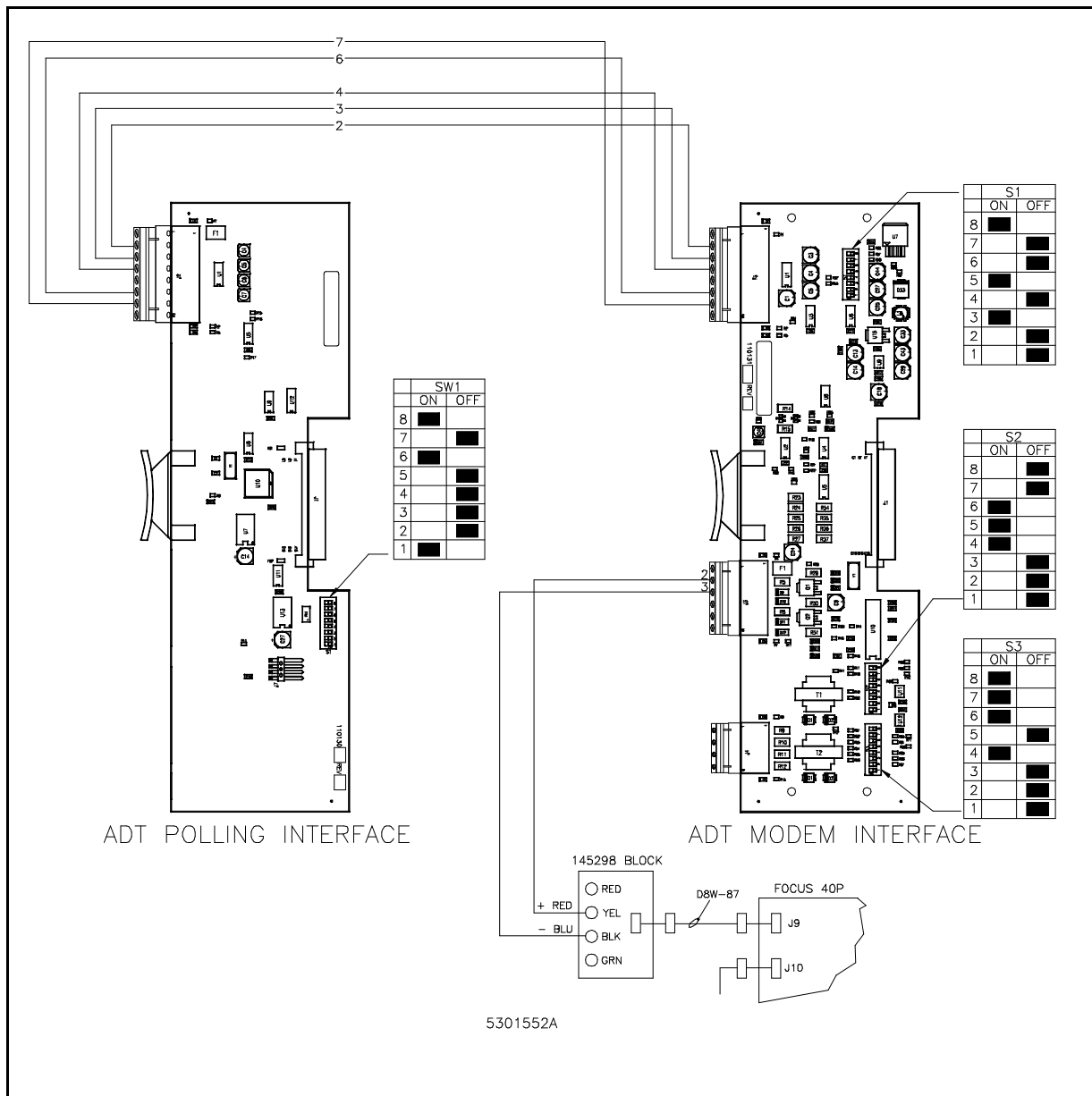
## DC Connection to the 2983 Autoterm



## DC Connection to Unimode

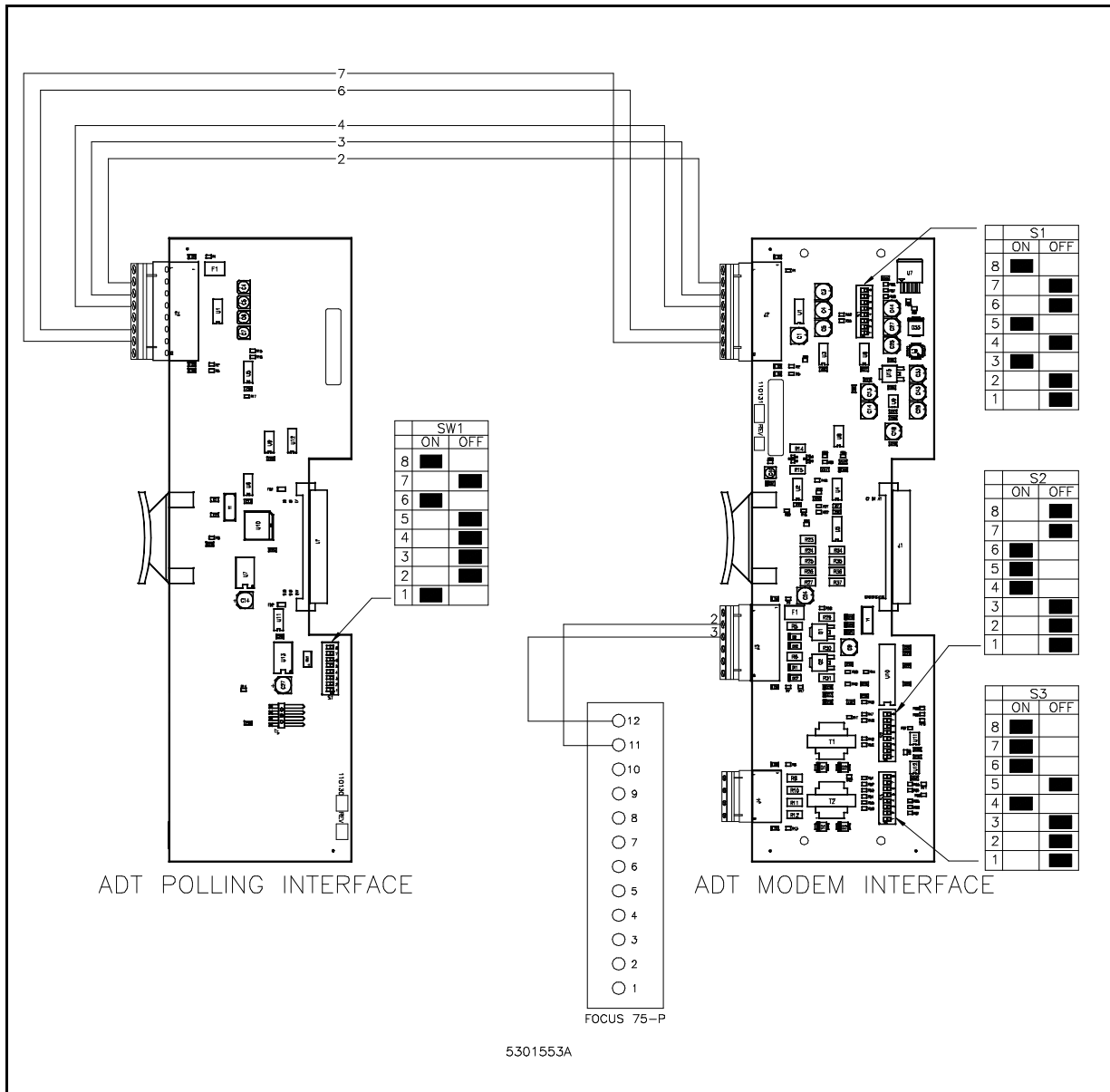


## DC Connection to the Focus 40-P

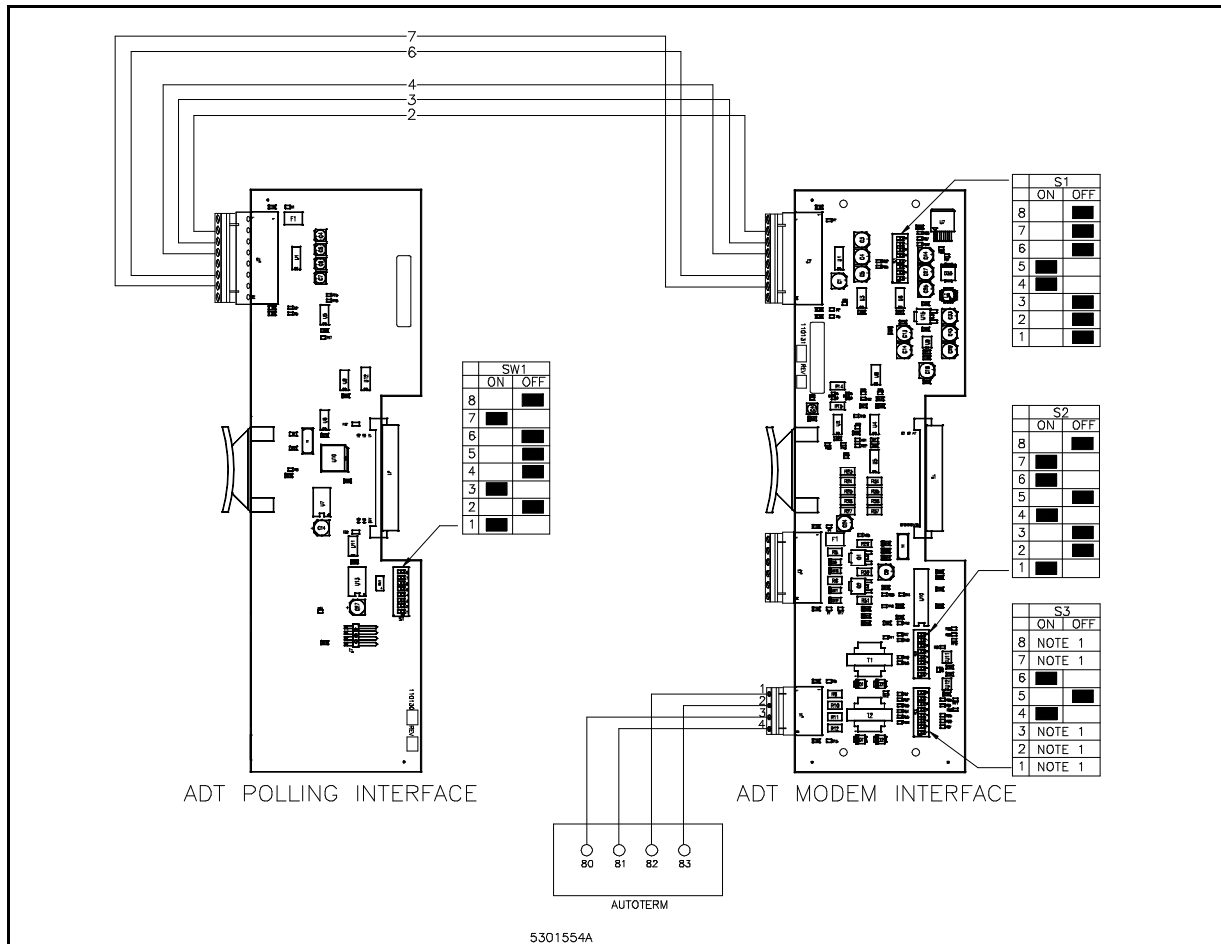




## DC Connection to the Focus 75-P



## AC 4-Wire Connection to the 2983 Autoterm



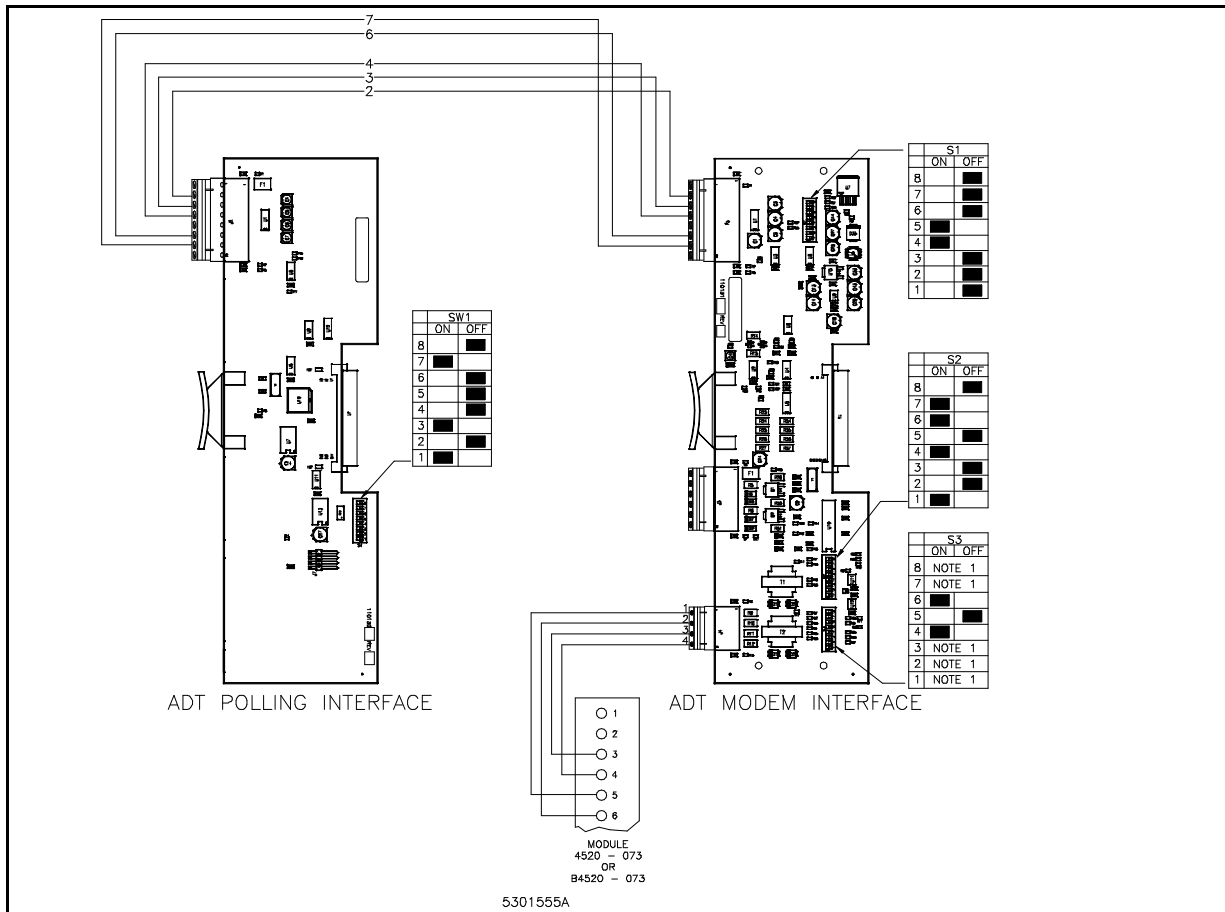
**NOTE:** The transmit signal level is set by switches 1, 2, and 3 of Switch 3. The receive signal level is set by switches 7 and 8. The following are recommended settings for connections over leased telephone lines and direct wire connections. In some cases, it may be necessary to reduce the transmit signal level or to increase the receive signal level.

**Leased telephone lines: Transmit (Output) at 0 dbm, receive at -15 dbm**

Output (dbm)	S3		
	1	2	3
0	OFF	OFF	OFF
-4	ON	OFF	OFF
-8	ON	ON	OFF
-12	ON	ON	ON

Input (dbm) Approximate	S3	
	7	8
-9	ON	ON
-15	ON	OFF
-30	OFF	OFF

## AC 4-Wire Connection to Unimode



**NOTE:** The transmit signal level is set by switches 1, 2, and 3 of Switch 3. The receive signal level is set by switches 7 and 8. The following are recommended settings for connections over leased telephone lines and direct wire connections. In some cases, it may be necessary to reduce the transmit signal level or to increase the receive signal level.

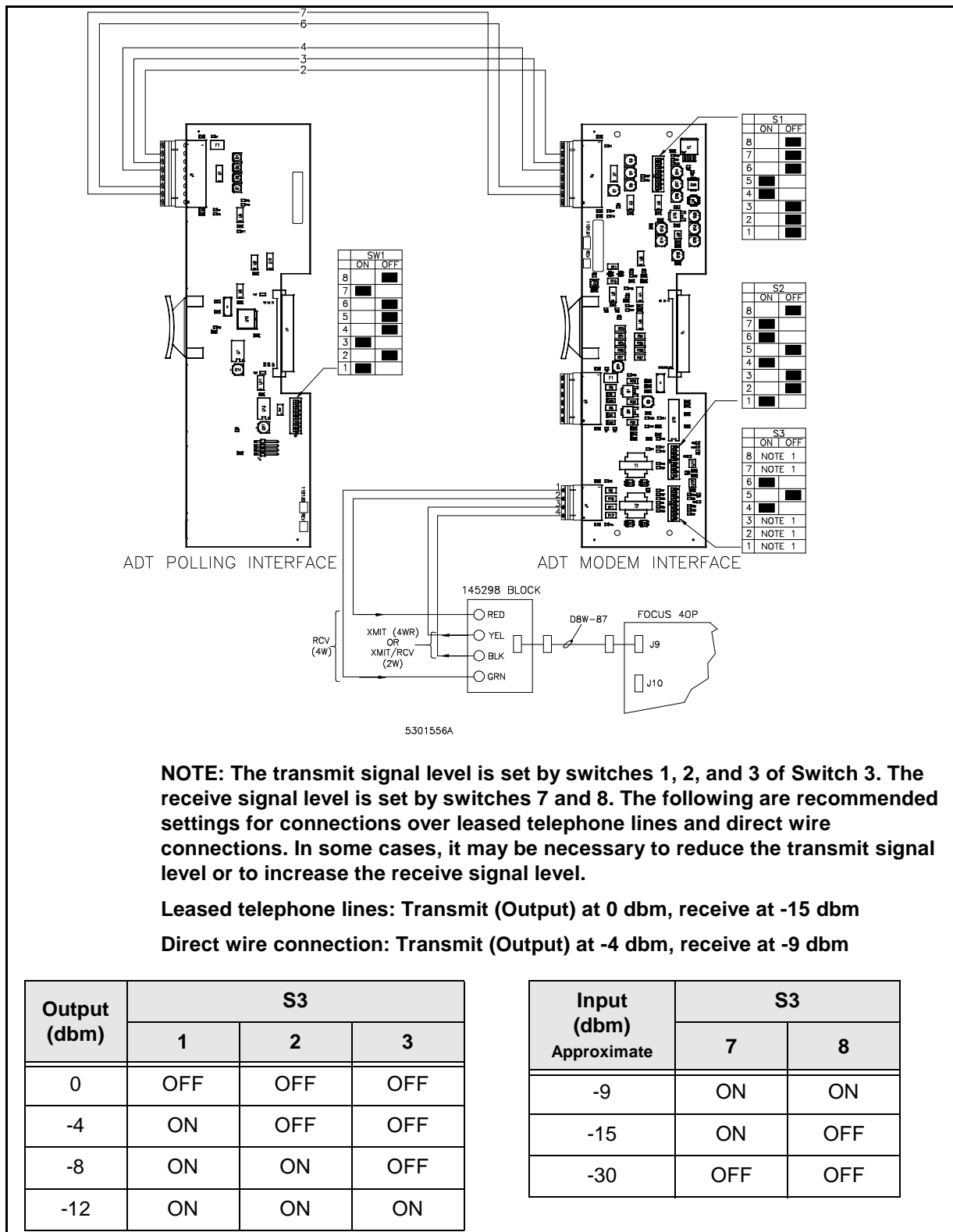
Leased telephone lines: Transmit (Output) at 0 dbm, receive at -15 dbm

Direct wire connection: Transmit (Output) at -4 dbm, receive at -9 dbm

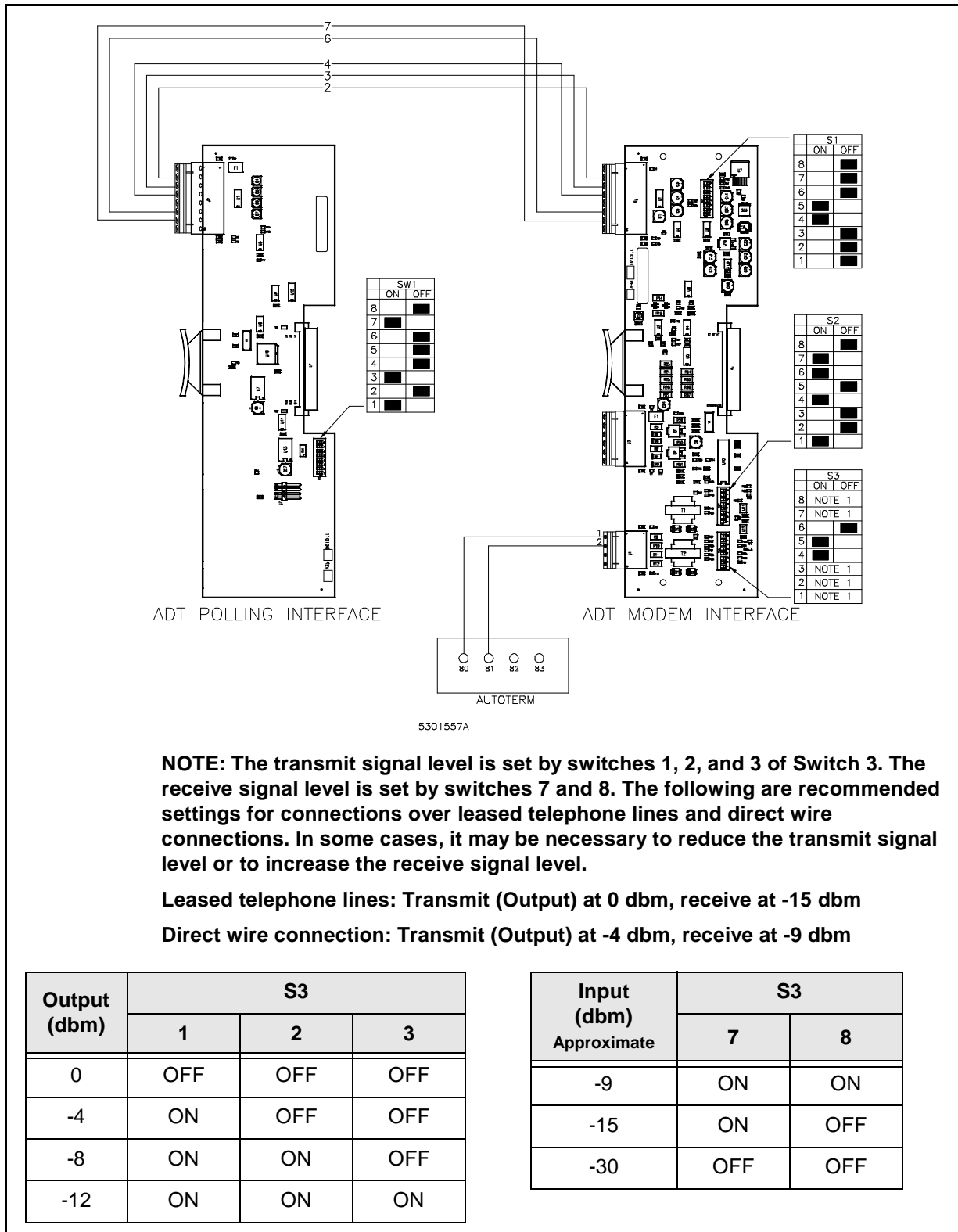
Output (dbm)	S3		
	1	2	3
0	OFF	OFF	OFF
-4	ON	OFF	OFF
-8	ON	ON	OFF
-12	ON	ON	ON

Input (dbm) Approximate	S3	
	7	8
-9	ON	ON
-15	ON	OFF
-30	OFF	OFF

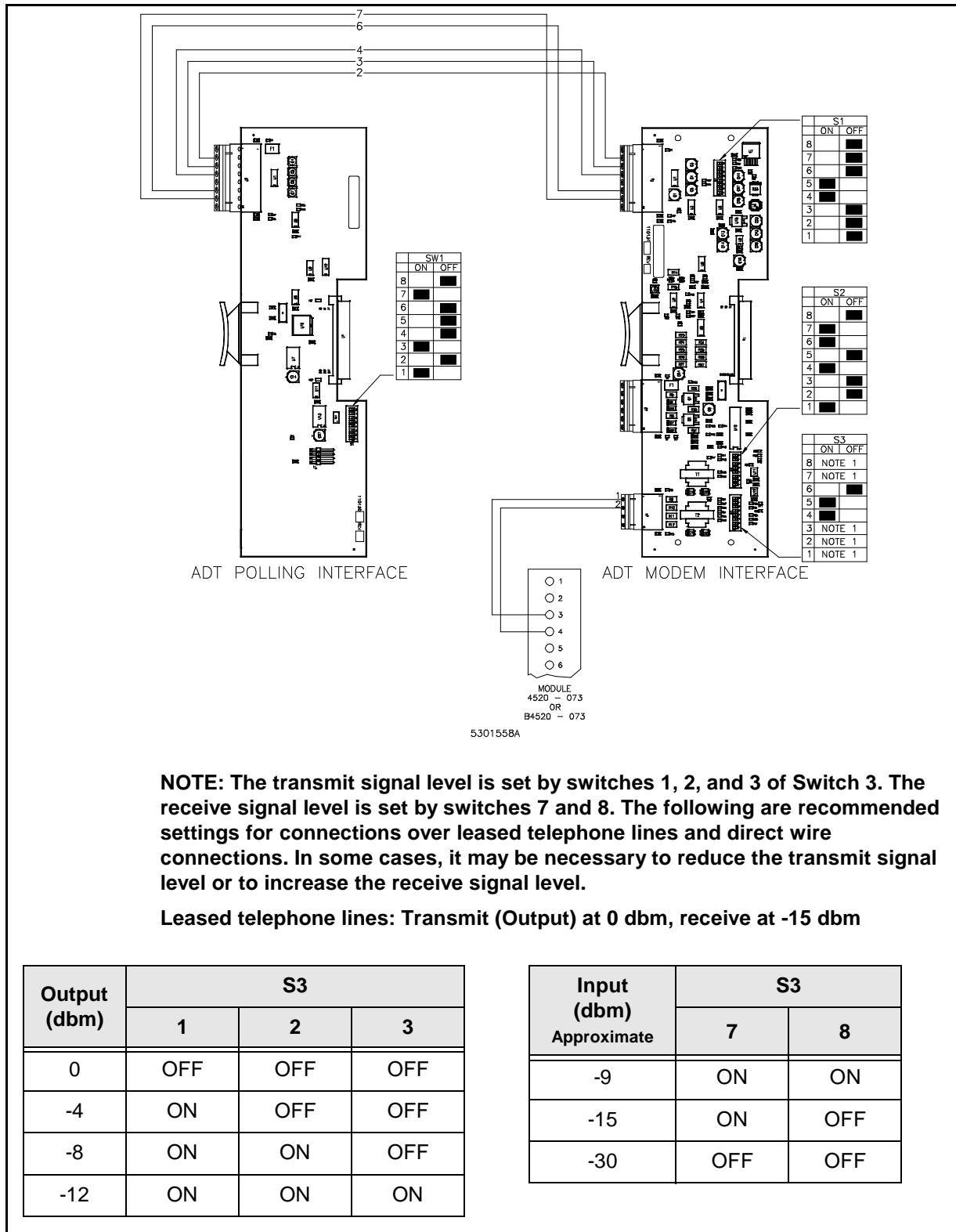
## AC 4-Wire Connection to the Focus 40-P



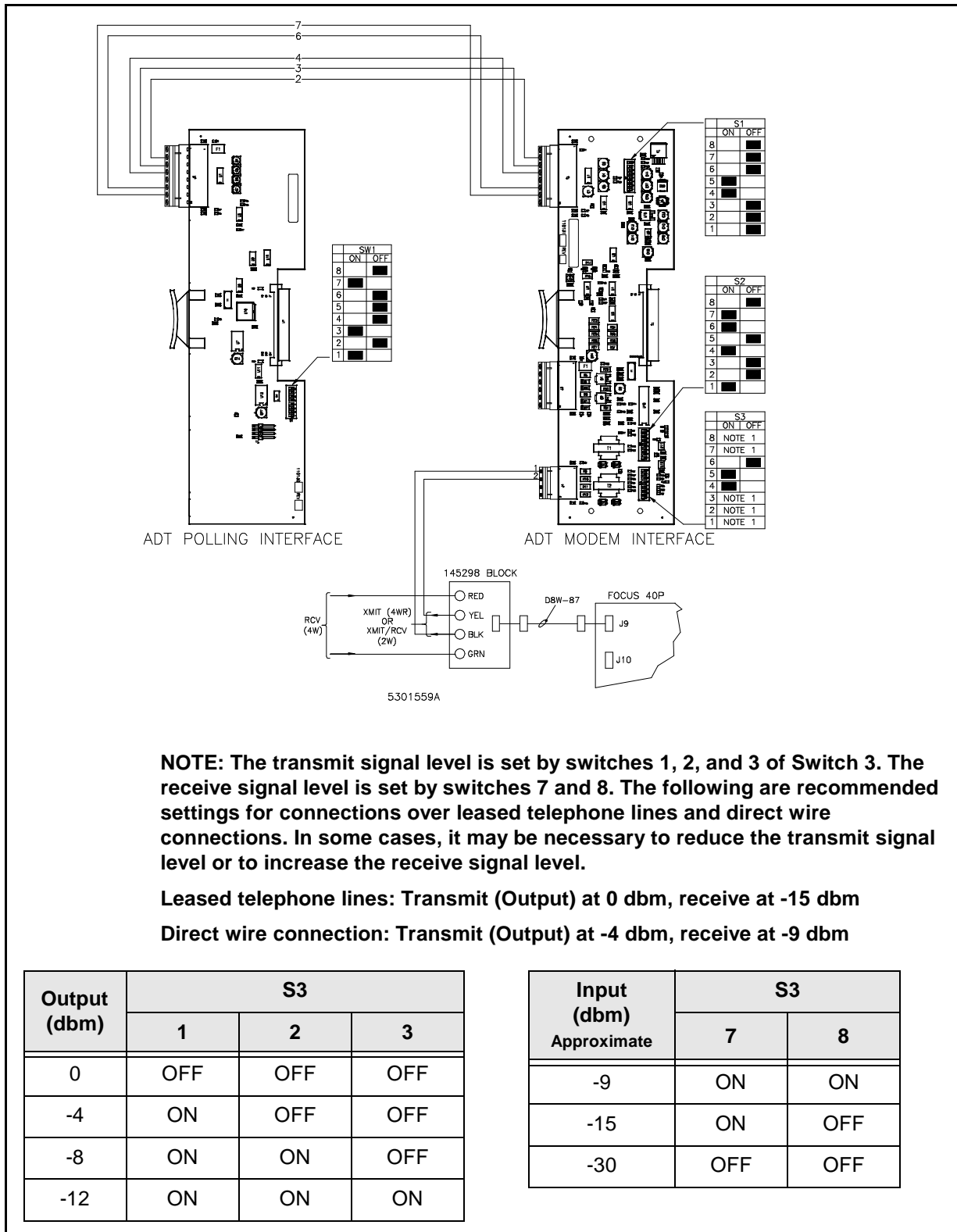
## AC 2-Wire Connection to the 2983 Autoterm



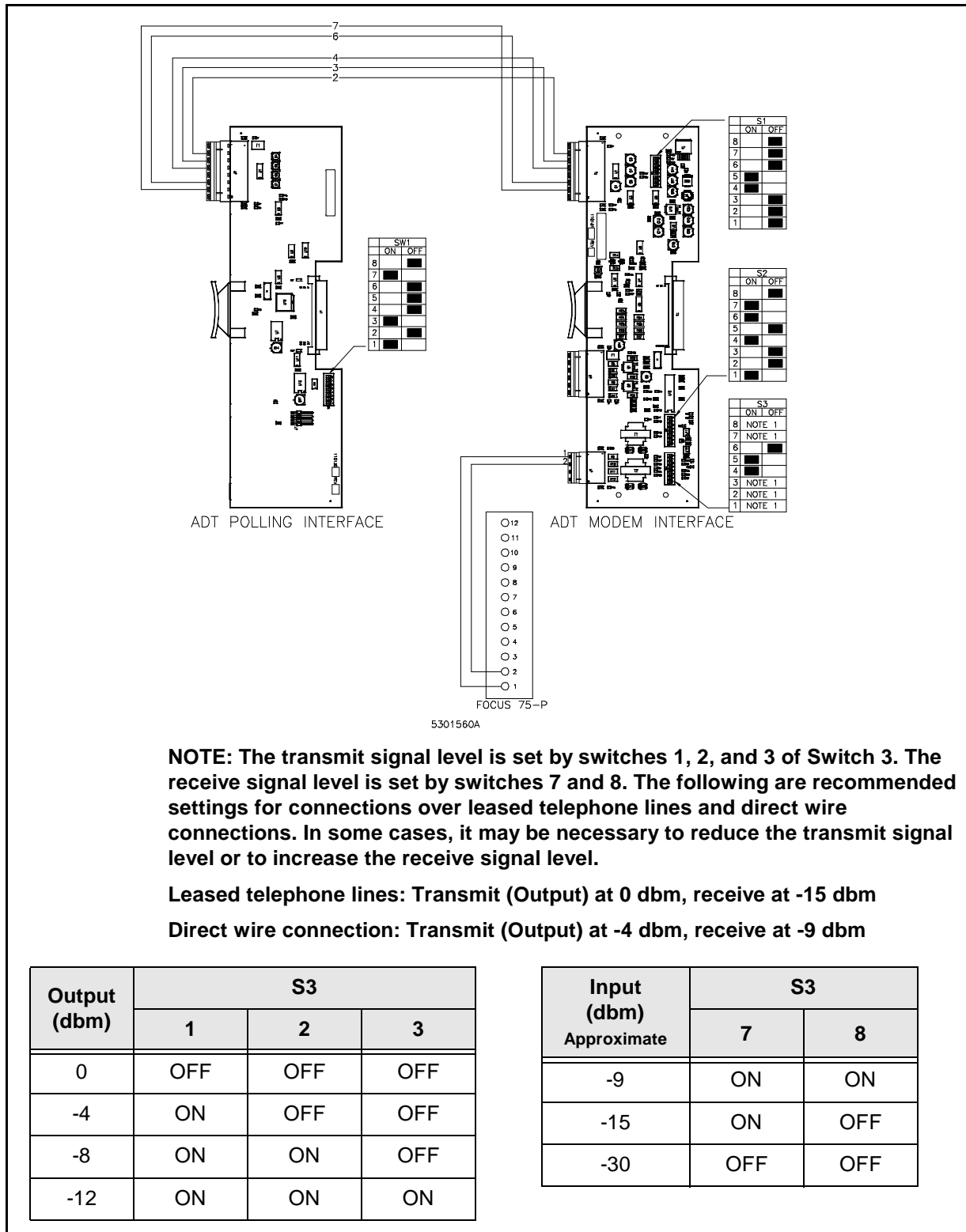
## AC 2-Wire Connection to Unimode



## AC 2-Wire Connection to the Focus 40-P



## AC 2-Wire Connection to the Focus 75-P Autoterm





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# Meaning of the Switches

Since many of the switch positions are used only for test the following tables list the signal names and/or functions associated with each switch.

**Table 1: Switch S1**

Switch	Set switch ON to activate function
1	Tx2 output to DC driver
2	Tx2 output to AC driver
3	Tx1 output to DC driver
4	Tx1 output to AC driver
5	Delayed CTS when using RTS/CTS
6	Rx2 selected for data from AC or DC lines
7	Data from DC line to Rx2
8	Data from DC line to Rx1

**Table 2: Switch S2**

Switch	Set switch ON to activate function
1	Controlled carrier for AC driver using - RTS
2	Constant carrier for AC driver
3	Mode = Answer (switch OFF, Mode = Originate)
4	Loop back disabled
5	AC/DC dual operation
6	600 Ohm line termination
7	AC Receive data 1 for Rx1
8	AC Receive data 2 for Rx2

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**Table 3: Switch S3**

Switch	Set switch ON to activate function
1	Gain control AC Transmit
2	Gain control AC Transmit
3	Gain control AC Transmit
4	1200 Ohm line termination
5	2 line selected
6	4 line selected
7	Gain control AC Receive
8	Gain control AC Receive