

P25 Trunking Setup

Quick Start Guide

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3 Introduction

This document provides information on how to configure the Tx9100, Tx9400 and Tx9600 Tait radios for basic P25 trunking operation.

For P25 information not included in this manual, please see the list of associated documentation below.

Associated Documentation

Manual	IPN
Safety and Compliance Guide	MTA-00011-xx
TM9300/TM9400 Installation Guide	MMB-00002-xx
TM9400 Users Guide	MMB-00002-xx
TM9400 Specifications Manual	MMB-00009-xx
TP9400 Users Guide	MPD-00003-xx
TP9400 Specifications Manual	MPD-00009-xx

Safety and Compliance Information

For safety and compliance, see the Terminals Safety and Compliance document: **MTA-00011-xx**

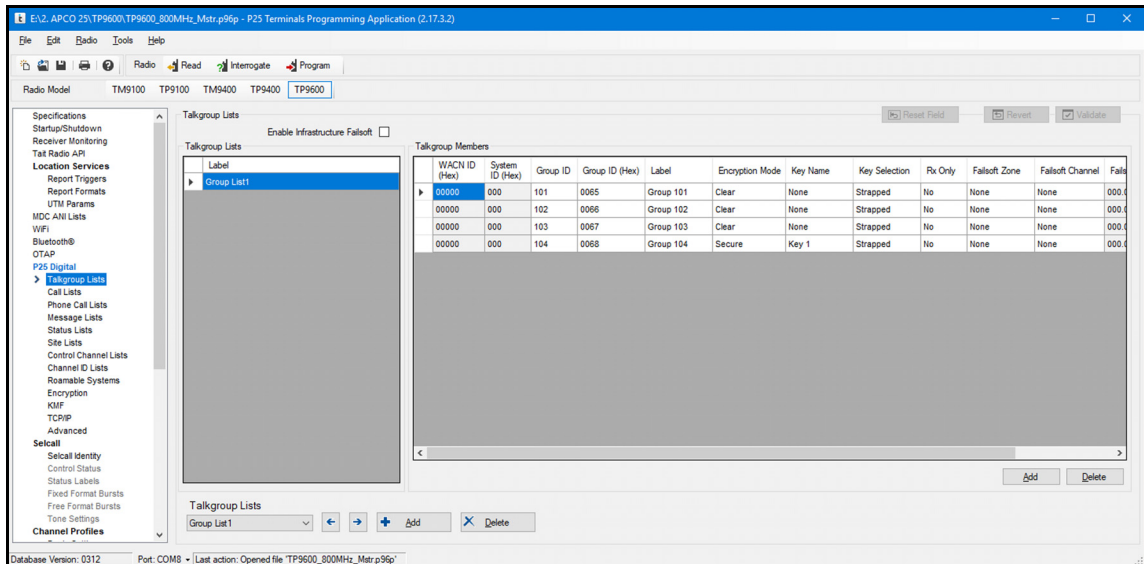
4 Talkgroup List

To configure a talkgroup list for your radio, you must input each of your required talkgroups into the Talkgroup Members table of the P25 Terminals Programming Application (**P25 Digital > Talkgroup Lists**).

With each talkgroup, include its decimal or hexadecimal ID, label, the encryption key (if required), and the failsoft channel.



For systems that use infrastructure failsoft, check the infrastructure failsoft tick-box (under **Talkgroup Lists** above the table). For each talkgroup, enter the frequency of the failsoft channel. Leave the value blank, and the radio will hunt for a failsoft channel and configure the frequency, forcing the radio to go to a specific channel.



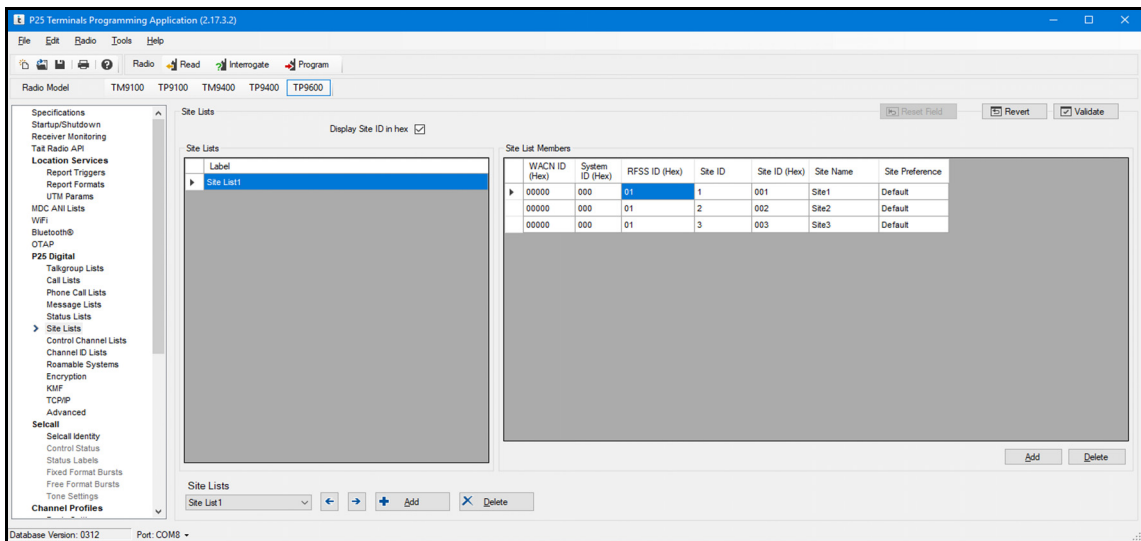
5 Site Lists

To add site lists to the system, use the RFSS ID and the Site ID input columns (**P25 Digital > Site Lists**).



Make sure to set a label that can be displayed on the radio screen, and select a site preference that will be used during hunting. Unless you are fine tuning hunting behaviour, you can start with all sites set to default.

If a site is not listed, the radio will still find them and attempt to gain service. The sites will then be added with the default preference. The hexadecimal (or decimal) ID will be shown on the display in place of an alias.

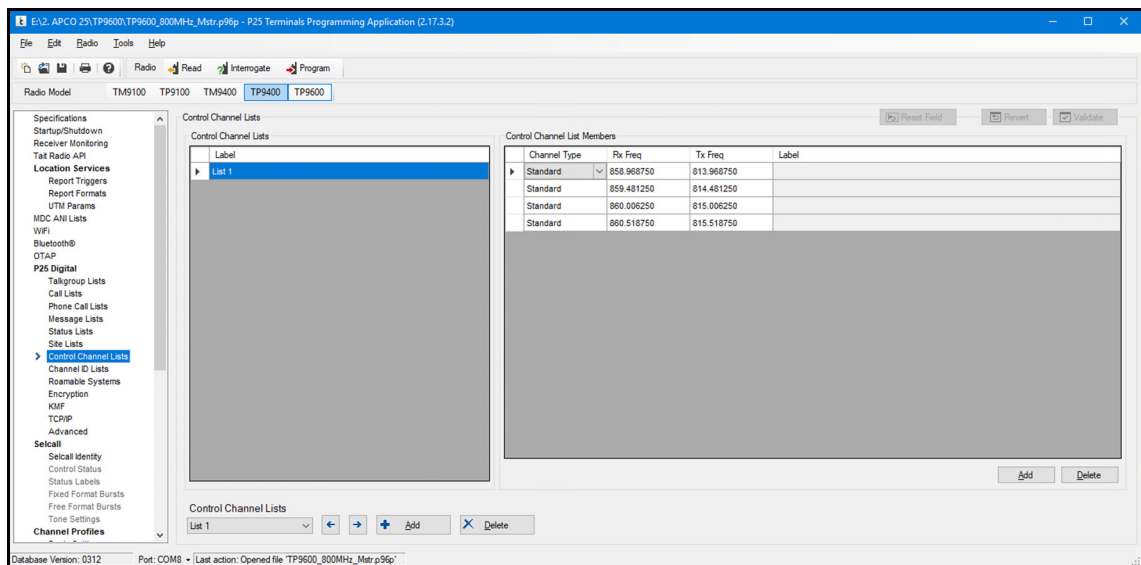


6 Control Channel Lists

Input all of your control channel list members to the table (**P25 Digital > Control Channel Lists**) using the RFSS ID and the Site ID input columns.



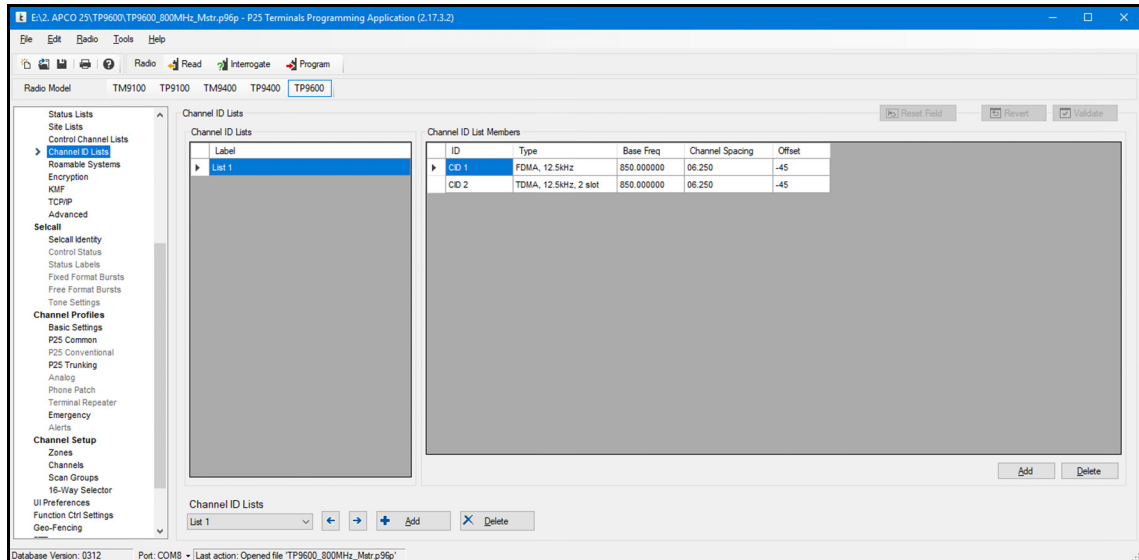
It is not necessary to have every channel in the system in this list. If you cannot find the radio channel in the list, the radio will start a band scan to find valid control channels. Once the radio has registered valid control channels on the system, it will learn other control channels from the adjacent site broadcast information from the system.



*The 'Channel Type' should be set to 'Standard'. Other options are only required for special use cases.

7 Channel ID Lists

Under Channel ID Lists (P25 Digital > Channel ID Lists), enter all frequency plans required for the system in the Channel ID List Members table.



i Ensure the ID matches the information supplied by the system administrator, and therefore the programming software.

To create higher number frequency plans, click the Add button several times to add more entries, then delete the numbers not required.

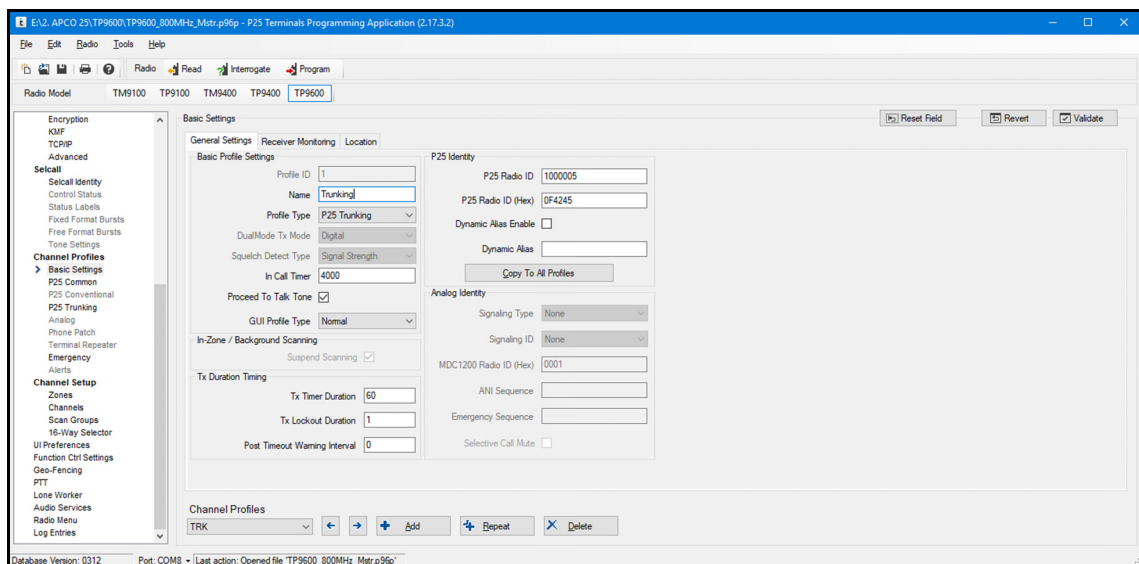
i Frequency plans are also referred to as IDEN tables/lists by some vendors.

8 Channel Profile Trunking Settings

The following section explains how to set up channel profile trunking settings.

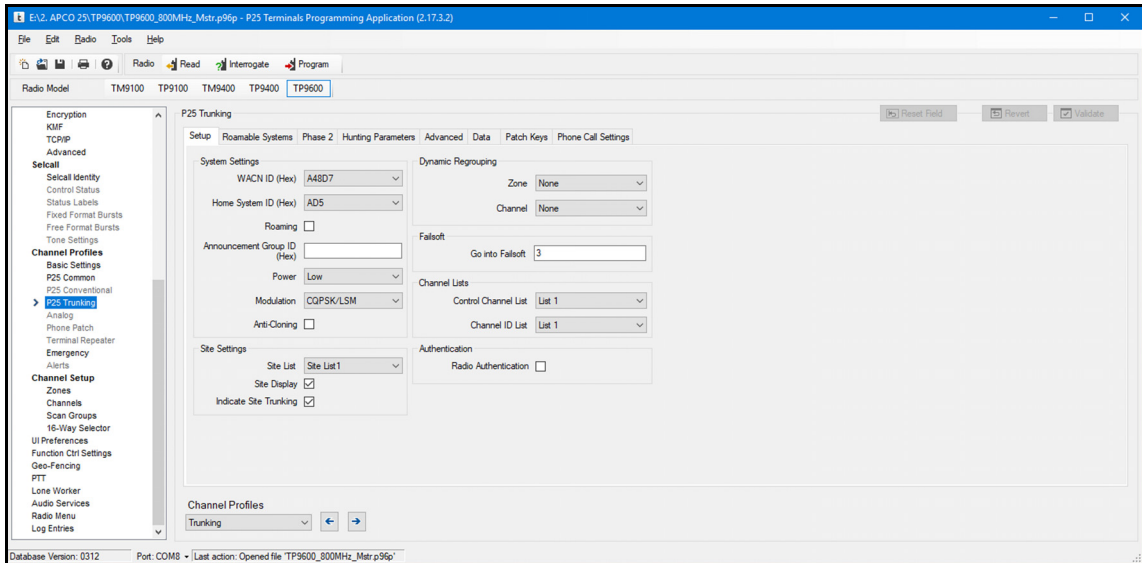
A channel profile controls the type of channel: P25 Trunking, P25 Conventional, Analog and Dual Mode. A channel profile will also remove configuration items not valid for the current type of profile. This is to assist the user in programming only the required items.

1. For a P25 Trunking system, go to the **Channel Profiles > Basic Settings > Profile Type** tab and select “P25 Trunking”.

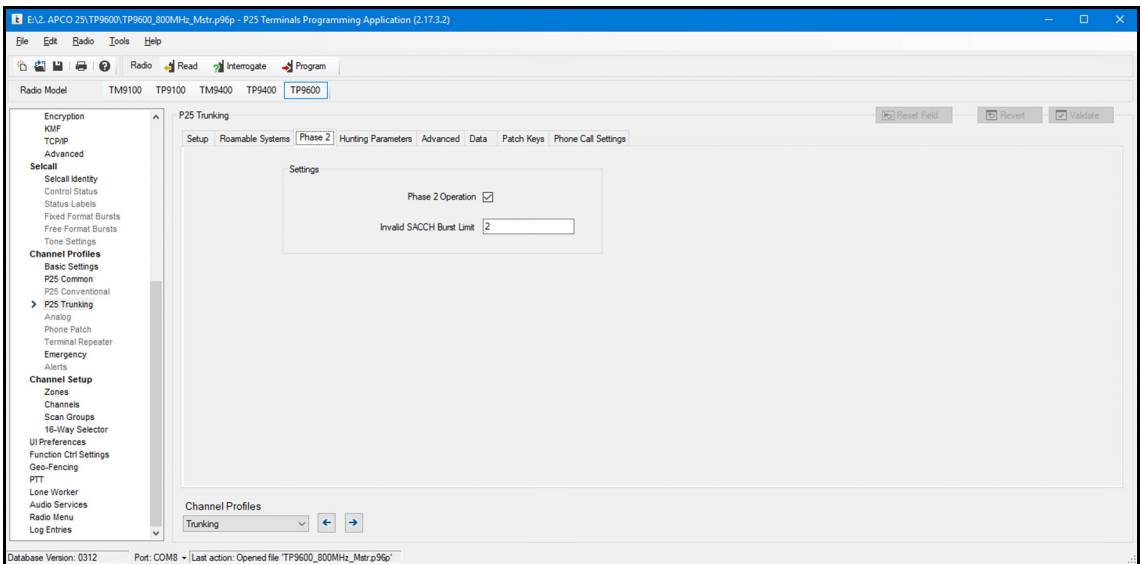


i Before leaving the “Profile Type” tab, set the P25 Radio ID, which is assigned by the system administrator.

2. Navigate to **Channel Profiles > P25 Trunking > Setup** and set your System ID, WACN (requires valid software system key or hardware advanced system key).
3. Select the modulation type for your system. If you have a mix of LSM/QPSK sites and C4FM sites, select LSM/QPSK, as the radio will auto-detect the type and adjust the receiver accordingly.
4. Select the site list created in the previous steps.
5. Select the control channel list created in the previous steps.
6. Select the Channel ID list created in the previous steps.
7. On the Phase 2 tab, select “Phase 2 (TDMA)”, if required by the system.



The hunting parameters can be left as default, if you have questions regarding hunting/roaming, please contact your local Tait provider.

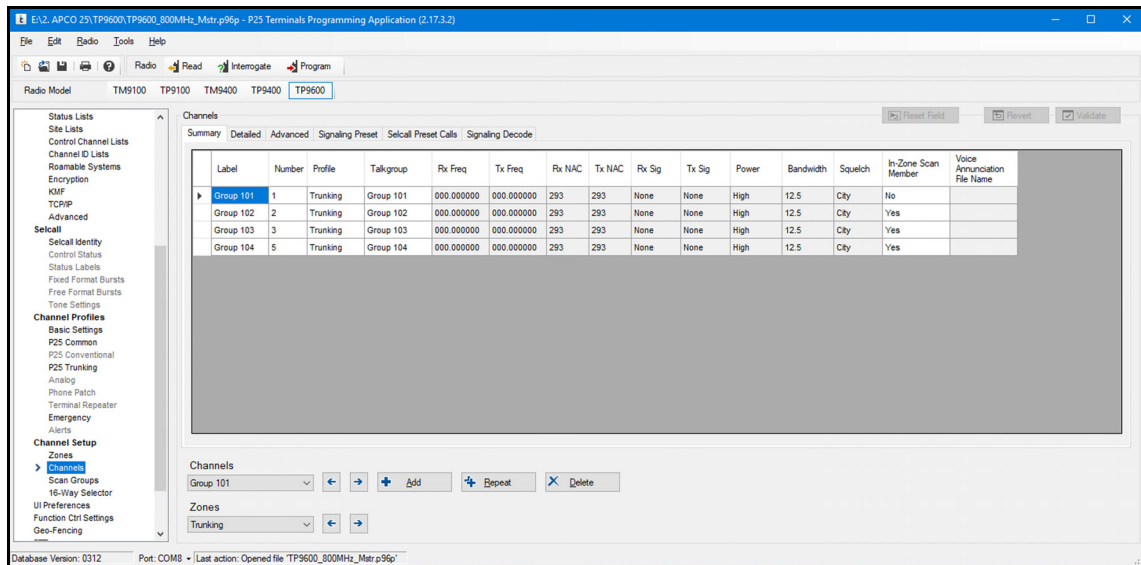


9 Configure Channels

1. To configure your channels, go to **Channel Setup > Channels**.
2. At the bottom of the screen, click “**Add**” to add the number of additional channels you require.



Make sure to configure the channels with the P25 trunking profile, and define a talkgroup for each channel. Refer to the profiles you selected in previous steps.



Typically the “**Label**” is configured to match the talkgroup name. This label will be displayed on the screen.

As soon as this basic template has been programmed, the radio will hunt and attempt to acquire service on the system.



Ensure you are in coverage range when attempting to acquire service.