Application Note

AN #: 307B
DATE: 29-Nov-2022

PYRAMID MODEL #: SVR-200 / SVR-250 / SVR-300 / SVR-350
RADIO MODEL: Tait TM9400 Series P25
ENGINEER: C. Carbajal

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Connections:	***SVR***	***Function***	***Radio*** **(Auxillary Connector DB15)**
	Black/Shield	Ground	Pin 15
	White	Tx Audio Out	Pin 7
	Blue	Remote enable/disable	Pin 9
	Green	PTT Out	Pin 12
	Red	Switched B+	Pin 8
	Yellow	Rx Audio In	Pin 13
	Violet	COR	Pin 2
	Brown	Local Mic In	N/C
	Grey	On Air Detect	Pin 10 (Not Connected In Factory Cable)
	Black/White	Emergency	Pin 5 (SVR-250/300 ONLY)

SVR Jumpers:	JP1	[+]	Remote Enable	**SVR Program:**	Mobile COR Polarity:	Low
	J1	[Out]	Tx audio level		Mobile Type:	Conv / Trunk
	J2	[Out]	Tx audio impedance		On-Air Polarity:	Low
	J4	[Out]	Local mic audio loop		Tx Audio Response:	Pre-Emp
	J5	[Out]	Local mic PTT loop		Rx Audio Response:	De-Emp
	J6	[Out]	Local Mic Sensitivity		Priority Sampling	~ 0.75 Sec.
	J7	[Out]	Rx Sensitivity		Local Mic Repeat	Disabled
	J8	[+]	Pull up resistor			
	J9	[In]	MCOR Pull up resistor			

Note: *Pyramid offers a universal Tait TM Series interface cable P/N 7500-10-1010 (SVR-200) and 7500-10-1211 (for SVR-250/300). These cables do not have On-Air Detect wired, which is used for Pyramid Smart Trunking operation. These cables have 3 wires coming out of the DB-15. Orange=Ignition Sense, Red = 12V Output from the radio accy connector, Black = GPIO4, which can be used to enable an external accessory, such as a horn relay or as an input.*

Additional Modifications (Radio):

1. In the TM9400 Programming Application:
   a. In the **Global Parameters / Programmable I/O / Digital** screen
      1. Set AUX_GPI1, Mode = *All*, Direction = *Input*, Action = *External PTT 1*, Active = *Low*
      2. Set AUX_GPIO4, Mode = *All*, Direction = *Output*, Action = *Transmission Status*, Active = *Low*
      3. Set AUX_GPIO5, Mode = *All*, Direction = *Output*, Action = *Signalling Audio Mute Status*, Active = *Low*
      4. Set AUX_GPIO6, Mode = *All*, Direction = *Output*, Action = *F3 Key Status*, Active = *High*, Signal = *Latching*
      5. Set AUX_GPI2, Mode = *All*, Direction = *Input*, Action = *Enter Emergency Mode*, Active = *Low*

   b. In the **Global Parameters / Programmable I/O / Audio** screen
      1. Set RX/PTT Type **RX**, Tap Out = *R10*, Tap Out Type = *D*, Tap Out Unmute = *Except on PTT*
      2. Set RX/PTT Type **EPTT1**, Tap In = *T3*, Tap In Type = *A*, Tap In Unmute = *On PTT*
   c. In the **Trunked Features and/or Conventional Features / Key Settings** screen
      1. Program one desired key = *Action Digital Output Line*. This will set one key as the remote enable of the SVR.
   d. In the **Global Parameters / PTT / External PTT (1)** screen
      1. PTT Transmission Type = Voice
      2. Audio Source = Audio Tap In