TAIT RADIO COMMUNICATIONS

DIGITAL RADIO SOLUTIONS: TM9155 and TP9155/TP9160

# PUBLIC SAFETY P25 RADIOS





#### TAIT RADIO COMMUNICATIONS P25 DIGITAL RADIO SOLUTIONS

# RELIABLE, SECURE AND CUSTOMISABLE COMMUNICATIONS

A first responder's work is full of judgement calls; for critical decisions they need instant reliable communications. From their mobile and portable radios they need a durable easy-to-use tool, not a burden.

First responders need their radios in order to assess the situation with more insight, make decisions with more certainty and relay progress with more clarity. They need the Tait Tough TM9155 and TP9155/TP9160 radios. These Tait mobiles and portables have been designed with the specific needs of public safety and government users in mind.

#### Working with other manufacturers for you

With an industry-recognised P25 Compliance Assessment Program (CAP) lab in Houston, and being a core member of the Inter RF Sub-system Interface (ISSI) standard group, Tait is committed to offering interoperable solutions that work seamlessly with radios and infrastructure of other manufacturers.

#### True openness means value

Open standards secure value through multi-vendor procurement and give buyers confidence to purchase radios that will work with those of other manufacturers.

#### Interoperable for effective teamwork

Officers can roam between networks, communicate in analogue mode and talk-groups. Tait produces radios in 700/800, UHF or VHF bands.

#### More choice to extend your solution

Comprehensive options include a wide choice of accessories, location services, configurations and equipment for tactical operations or emergency response.

#### Advanced encryption AES as DES

FIPS 140-2 certified encryption delivered by fast in-field or Over-the-Air Rekeying (OTAR) brings total security and operational flexibility, so only the right people take the right calls.

### Empowered mobile teams

Tait P25 radios are engineered to be easy-to-use. The TM9155 mobile and TP9155/60 portables share the same interface so if you can operate one, you can operate both.

#### Tough radios for tough users

Superb industrial design and quality of manufacture means these radios are built to take the knocks.

During the design stage, Tait tests to the most demanding MIL-STD 810F schedule, going beyond standard drop tests and using the same dropped radio for water ingress tests.

#### The right fit for your network

In addition to flexible software and customisable hardware options, Tait radios can be used on conventional, trunked and simulcast networks.















P25 public safety solution: TP9160/TP9155 portables, Key Fill Device, TM9155 mobile and hand-held control head, TB9100 base station.

# Now in its fifth decade working with police, fire and ambulance, Tait is proud of its proven track record of satisfying P25 public safety customers across the world.



"Tait's professional sales and technical staff presented a digital solution package that was technically compliant, **cost-effective** and provided the critical two-way portable radio coverage needed for public safety communications for officer safety in the City of Augusta."

#### RAPHAEL ST. PIERRE

ASSISTANT CITY MANAGER, CITY OF AUGUSTA, MAINE



"The install went smoothly and effortlessly and the outstanding coverage, especially along the border, has far exceeded our expectations. To say that we are **extremely impressed** with the effectiveness and success of the Tait system is an understatement."

#### PABLO DUARTE

COMMUNICATIONS ENGINEER, COCHISE COUNTY INFORMATION TECHNOLOGIES, ARIZONA



"We also need the radios to be user-friendly, and Tait radios meet this criterion. People want to be able to use the equipment with the touch of a button. They don't want to have to read long manuals. Police officers don't have time to become radio specialists; they're radio users."

#### JOILTON CHAVES

CHIEF OF TELECOMMUNICATIONS, SAO PAULO CIVIL POLICE, BRAZIL



"The flexibility of having the Tait products customised and the ability to work with different component providers was a major selling point for us. The cutover to the new system was seamless and the **exceptional clarity** and coverage far exceeds our original expectations. Tait management and staff showed tremendous care and interest throughout our process."

#### DAN MURPHY

RETIRED DEPUTY CHIEF, KINGSTON POLICE, ONTARIO, CANADA



"Tait won the contract for Police's new radio network by proving that they had the right people, technical expertise and **reliable equipment** to provide the full solution. We are now working together as partners to ensure emergency services get the best possible radio technology to support their work."

#### MURRAY MITCHELL

POLICE ICT MANAGER, NEW ZEALAND POLICE

Modern public safety organisations are always ready to respond. Because Tait makes it easier to programme radios, manage call groups and reconfigure networks, agencies can focus on getting the job done.

Intrinsically Safe battery option for use in hazardous areas.

Custom head colours, lenses and keypad graphics can simply differentiate multiple radios in a vehicle.

A GPS receiver can be connected to the TM9155 mobile radio which enables longitude and latitude display.

TP9100 dual-shot moulding provides built-in shock absorption (pictured). Angled and textured controls improve usability, and the LED can be turned off for use in convert operations.

TM9155s are available in different power options including 110W (VHF).

NB-110W mobile not available in all regions.

A uniquely-angled and intentionally firm volume control allows users to distinguish knobs when wearing gloves or working in dark conditions











#### Secure encryption for safer staff

Because the TP9155/60 and TM9155 are engineered for public safety, DES and AES encryption can be deployed through the direct connect Key Fill Device (KFD) or over-the-air (OTAR) for fleet-wide efficient rekeying with a Key Management Facility (KMF).

#### Secure radios for state-wide networks

With the Simplified System Key feature, these Tait portables and mobiles can be remotely managed by network administrators. This feature prevents 'unregistered' radios from being added to the network without prior consent.

#### Secure build for front line knocks

Rubber armour knobs and base, recessed lens, strong metal-hinged belt clip and unique secure battery retention deliver one tough portable radio. Advanced thermal aging tests, MIL-STD 810F test schedules and independent laboratories' verification, ensure Tait radios deserve the 'Tait Tough' reputation.

#### Intelligent fleet management

Built-in GPS intelligence enables Tait P25 radios to be used for managing fleets of vehicles and tracking personnel. Tait GPS display can show latitude and longitude coordinates on a mobile screen, ideal for off-road or incident location.

#### Intelligent scanning

For conventional users, editable scanning allows the number of scanned channels to be edited to reduce scanning time, while for trunked users, talk-group scanning ensures users can listen to preferred talk-groups.

#### Intelligent power management

Programmable power settings and intelligent batteries result in radios which officers can depend on throughout their shift. Tait radio displays are even engineered to give a more meaningful indicator (energy available to run the radio) instead of a crude voltage meter. Smart tri-chemistry chargers and battery technology mean that users never have to think before charging a battery – the appropriate charge is delivered automatically.

#### Tailored to the user

Tait radios can be tailored to the needs of the organisation, the type of work being carried out and even the specific users. Coloured radio bodies enable easy distinction between radios of different bands, customised lenses can include an organisation's logo for quick identification and the on-screen text can be displayed in different languages for multi-lingual environments.







TM9155 available with hand-held control head



TM9155 available with remote installation

#### Flexible interfaces for custom applications

The unique Tait Application Programming Interface (API) provides the power to integrate Tait P25 radios into other systems, when enabled.

#### Flexible hardware for ease of install

Choose from remote boot mount, dash mount or use hand-held control heads for discreet glove compartment storage. Hands-free kits with visor-mounted microphones and gear shift PTTs complete an ideal surveillance option.

#### Flexible software for ease of upgrade

Software Feature Enablers (SFEs) mean Tait radios can be readily extended as needs change, removing the hassle of hardware upgrades and allowing you to purchase and load necessary functionality when you need it.

#### Flexible installation for convenience

Remote cabling of up to approximately 1 km allows the TM9155 mobile body and head to be separated to overcome in-building coverage challenges. With a radio body situated on a building rooftop securing optimum range, you can still make calls from the radio head located in the office

#### Flexible accessory selection for total solution

First responders don't distinguish between an accessory and the radio and neither does Tait. Choose from Tait's range of accessories to complement the radio.

#### Advanced menu system for ease of use

Menu functions are identical across Tait P25 portables, mobiles and hand-held control heads (HHCH). This means any user familiar with the operation of Tait portables can easily operate Tait mobiles or HHCHs.

#### Advanced audio processing for clear communications

Even in the loudest environments Tait P25 radios transmit crystal-clear audio with virtually no distortion. The investment of four decades of radio engineering expertise delivers improved audio clarity and exceptional performance for accurate communications.

#### Advanced diagnostics to assure coverage

Diagnostic tools including Received Signal Strength (RSSI) and Quality of Service (QoS) can be used to assess and display the quality of coverage a radio is receiving without taking a channel out of service.



A suitably-enabled radio can inhibit and uninhibit or can cause another radio to covertly transmit (useful in SWAT-style squad operations).



The Tait Key Management Facility (KMF) and Key Fill Device (KFD) (pictured) improve efficiency of encryption deployment and management.



Tait radios can be adapted for covert operations.



Tait Transportable Repeaters enable responders to extend their wireless radio communications network, or set up a new network on the move, in minutes.



The transportable mobile consists of a TM9155 in a ruggedized case, ideal for easy set-up during field operations or for temporary vehicle installation.

Lithium-ion batteries reduce on-belt weight load.

Tait is solely focused on radio communications and specialises in the unique needs of public safety agencies. Tait continues to stand shoulder-to-shoulder with our public safety customers, ultimately resulting in safer citizens, empowered officers and greater community trust.

Dual control heads on the TM9155 allow radio placement in the same vehicle for example the cab and rear of an ambulance. Alternatively, two radio heads can be placed in separate offices to save costs by utilising one radio body.



High temperature display option on Tait mobiles optimises screen visibility in hot environments



Keypad lock allows portable radio users to 'lock' certain buttons on their radio to prevent accidental activation.



Unique and patented battery clasp mechanism eliminates any threat of the battery dislodging when the radio is dropped.

Programmable function buttons increase radio versatility, for example to assign an emergency button to both a speaker-mic and a radio emergency button.



#### Investment is staged with phased transitions

Phase in your radio upgrade to meet funding and regulatory requirements. In addition, the costs of upgrading to P25 can be staged and training can be planned, knowing that analogue and digital technologies will work in unison.

#### Investment in versatile network options

Tait P25 radios can operate on P25 conventional and trunking systems (both simulcast and multicast networks), while maintaining backwards compatibility. To meet the agency's coverage and capacity needs, Tait radios fit right in to the network that suits.

#### Investment alternative with interoperability leader

With a P25 CAP testing laboratory certified by the Department of Homeland Security, Tait continues to work with other manufacturers so taxpayers ultimately secure better value. The Tait P25 digital range of interoperable portables, mobiles and accessories offer the flexibility of working in digital or analogue mode and with other manufacturers' radios and networks.

#### Investment in experience

With more than 40 years experience, Tait staff have a history of commitment to radio communications. Decades of network and product design, installation, training and support expertise is available to ensure your best outcome. Professional services and industry-leading products mean Tait is one point of contact for a total public safety radio communications solution.

#### Investment for the future

Rest assured, a total P25 solution from Tait will be supported into the future thanks to the unique 'Trust' structure established by the company founder Sir Angus Tait. His pledge to continuously invest in the company's research and development ensures Tait will be at the cutting edge of radio technology while offering long-term certainty for organisations partnering with Tait.

MORE INFORMATION For news, services, product specifications, comprehensive product information, frequency bands, case studies, and contact details of your nearest Tait customer service facility, please visit www.taitradio.com

## TAIT P25 PORTABLES AND MOBILES FEATURES COMPARISON

The TP9155/60 and TM9155 featured in this brochure are specifically designed for the needs of public safety users. Tait also manufactures the TP9135/40 and TM9135 radios which provide reliable digital communications for teams delivering government services and public works, and who need audio clarity. For more information on these radios visit www.taitradio.com.

> Trunked and conventional digital radios for public safety

Trunked and conventional digital radios

PRODUCT	TP9155	TP9160	TM9155	TP9135	TP9140	TM9135
LENS COLOUR	PLATINUM	PLATINUM	PLATINUM	CHARCOAL	CHARCOAL	CHARCOAL
1000 channels	•	•	•	•	•	•
P25 Conventional	•	•	•	•	•	•
P25 Trunked	•	•	•	•	•	•
P25 Simulcast	•	•	•	•	•	•
VHF	•	•	•	•	•	•
UHF	•	•	•	•	•	•
700/800 MHz	•	•	•	•	•	•
MIL-STD 810C,D,E and F	•	•	•	•	•	•
P25 Common Air Interface (CAI)	•	•	•	•	•	•
GPS transmission	0	0	•	0	0	•
Two tone decode	•	•	•	•	•	•
MDC 1200	•	•	•	•	•	•
Intra-system roaming	•	•	•	•	•	•
Supports analogue	•	•	•	•	•	•
Simplified System Key	•	•	•	•	•	•
Customised lens design	•	•	•	•	•	•
Administration Services	•	•	•	*		*
AES encryption	•	•	•	*		*
DES encryption	•	•	•	*		*
FIPS 140-2 certified	•	•	•	*		*
OTAR capability	•	•	•	*		×
P25 / Tait Application Programming Interface (API)	•	•	•	*		•
Intrinsically Safe option	•	•	N/A	*		N/A
Lithium-ion battery option	•	•	N/A	•	•	N/A
Portable Keypad	4	16	N/A	4	16	N/A
Vehicle charger option	•	•	N/A	•	•	N/A
Dual head configuration	N/A	N/A	•	N/A	N/A	*
Hand-held control head (HHCH)	N/A	N/A	•	N/A	N/A	•
110W option	N/A	N/A	•	N/A	N/A	•
Man Down	•	•	N/A	•	•	N/A
Lone Worker		•	×	•	•	×

Feature available O Contact Tait for availability N/A Not applicable

\* Feature not available

### TAIT: THE RIGHT FIT



