

# OPTIONS & ACCESSORIES



## MOBILE RADIOS

BROADBAND | DMR | P25 | ANALOG

Optimize and tailor your  
communications experience

## Preface

### PLEASE READ BEFORE USING THIS PRODUCT CATALOG.

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#### **SCOPE**

This catalog describes accessories compatible with Tait Mobile Radio products.

Custom product and non-standard equipment is not listed. Please contact your Tait representative if you require information on any product not listed within this book.

#### **PRODUCT STATUS**

Every care has been taken to assure that the products meet the respective regulatory requirements. However, Tait does not warrant that all products meet specific country requirements.

If you have any questions regarding product suitability please contact your Tait representative.

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#### **UPDATE AND CHANGES**

The information within the product catalog is subject to change without notice and shall not form part of any contract. This information is issued for guidance purposes only. Please note that not all frequency bands and power outputs are available in all markets.

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## Mobile Control Head Options

### FIXED/LOCAL OPTIONS CONTROL HEAD



#### LARGE CONTROL HEAD

- ▶ TM9355 DMR + Analog (See [page 19](#))
- ▶ TM9455 P25 + Analog (See [page 19](#))



#### 2-DIGIT CONTROL HEAD

- ▶ TM9315 DMR + Analog (See [page 29](#))



#### PROGRAMMING CONTROL HEAD

- ▶ TM9395 DMR + Analog (See [page 29](#))

### REMOTE OPTIONS SINGLE CONTROL HEAD



#### LARGE CONTROL HEAD

- ▶ TMX450 / Tait Unified Vehicle (See [page 3](#))
- ▶ TM9355 DMR + Analog (See [page 21](#))



#### HAND HELD CONTROL HEAD

- ▶ TMX450 / Tait Unified Vehicle (See [page 3](#))
- ▶ TM9355 DMR + Analog (See [page 27](#))
- ▶ TM9455 P25 + Analog (See [page 27](#))

### REMOTE OPTIONS DUAL CONTROL HEAD



#### LARGE CONTROL HEAD

- ▶ TM9357 DMR + Analog (See [page 25](#))
- ▶ TM9457 P25 + Analog (See [page 25](#))



#### HAND HELD CONTROL HEAD

- ▶ TM9357 DMR + Analog (See [page 25](#))
- ▶ TM9457 P25 + Analog (See [page 25](#))



#### SMARTPHONE CONTROL

- ▶ TMX450 / Tait Unified Vehicle (See [page 3](#))

### REMOTE OPTIONS DUAL BAND/BODY



#### LARGE CONTROL HEAD

- ▶ TM9356 DMR + Analog (See [page 21](#))
- ▶ TM9456 P25 + Analog (See [page 21](#))

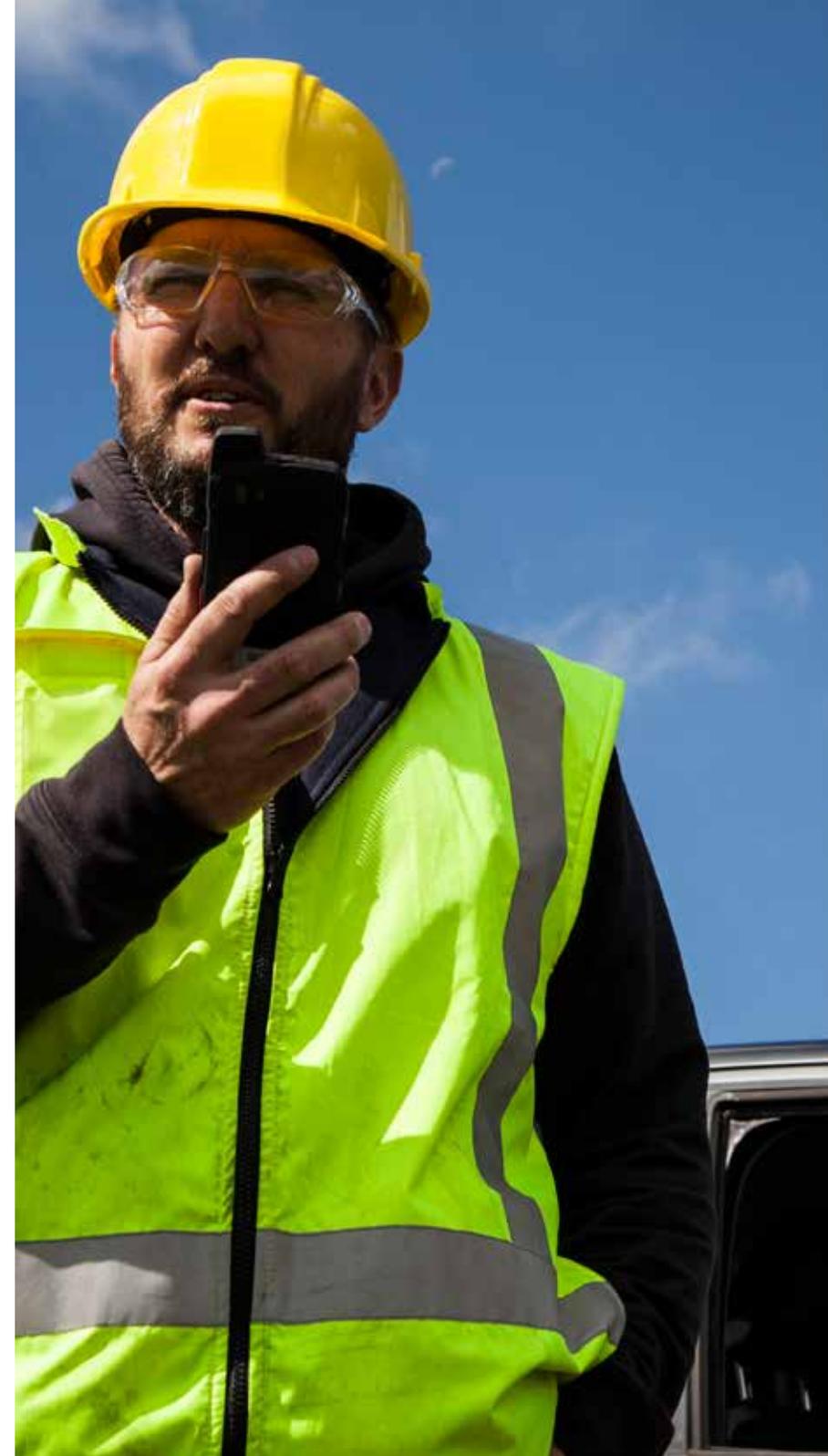
# TMX450 / TAIT UNIFIED VEHICLE

**A flexible application platform and a range of connectivity options, all in one familiar device**

Supercharge the performance of your existing or new Tait mobile radio with the TMX450 / Tait Unified Vehicle platform. TMX450 / Tait Unified Vehicle is made to evolve and protect your investment with the ability to deliver a range of voice and data solutions for current and future needs of users and operators.

Creating a network of networks, including analog and digital radio, LTE, WiFi, Bluetooth® and wired Ethernet, TMX450 / Tait Unified Vehicle becomes the mission critical communications device to ensure vital data and voice calls always get through.

At its heart is a powerful industrial grade processor and the TMX450 / Tait Unified Vehicle platform, allowing a range of current and future applications that help our customers improve worker safety and realize more productivity through improved connectivity.



## TMX450 / Tait Unified Vehicle Supported Networks and Features

LMR Components	LMR Network Types	DMR Trunked Tier 3	DMR Conventional Tier 2	MPT	Analog Conventional	P25 Trunked	P25 Conventional
	Tait Mobile Radio Type	TM9300**	TM9300**	TM9300**	TM9300**/ TM9400	TM9400	TM9400
Broadband Data	Cellular/WiFi/Ethernet	✓	✓	✓	✓	✓	✓
Native Applications	Voice Recording	✓	✓	✓	✓	✓	✓
	Remote Application	✓	✓	✓	✓	✓	✓
	OTA Updates over Cellular/WiFi/Ethernet	✓	✓	✓	✓	✓	✓
	AppBuilder	✓	✓	✓	✓	✓	✓
Tait PTTtoX Service	Manual Network Switching	✓	✓	✓	✓ (TM9300)	Future	Future
	GeoFenced Network Switching	✓	✓	✓	✓ (TM9300)	Future	Future
	Automatic Network Switching	✓	X	✓	X	Future	X
	LMR Interworking	✓ (Full)*	Future	Future	Future	Future	Future

\*Full capability only supported on Tait DMR Trunked Tier 3 Networks. This is a future feature for other vendors' networks.

\*\* Not available for TM9315 & TM9395

## TMX450 / Tait Unified Vehicle

### Tait PTTToX Service

The Tait PTTToX solution provides the next generation in communications capability, ensuring communication is available when required across multiple communication bearers. The Tait PTTToX Service ensures a consistent PTT experience that users have on a traditional LMR network.

In areas where a traditional land mobile network is not available due to coverage or capacity limitations, PTT voice can still be available using 3G/4G Cellular broadband and other bearers (eg. WiFi, or Ethernet when using an external router or existing wired network infrastructure). Users are able to talk to the same talkgroups and individuals regardless of the network type they are operating on.



#### EXTEND RADIO FEATURES BEYOND RADIO COVERAGE

##### Increase Operating Area



For a variety of reasons, your radio network may not cover all the areas where your staff work or travel. Tait PTTToX allows workers to continue communicating wherever 3G/4G cellular service is available as if they were still on the primary LMR network.

##### Control the Cost of Coverage



Because cellular coverage can be used in areas less often visited, LMR coverage can be focused on the areas where workers spend most of their time.

##### Improve Worker Safety



LMR-like communications, including emergency calls and alarms, are maintained beyond the LMR coverage area. If an emergency arises in these areas, workers are still able to easily summon help.

##### Minimal Need for User Control



TMX450 / Tait Unified Vehicle provides a path to both cellular and LMR in the one device autonomously; the user does not need to manually select the bearer to talk on, meaning that the user can concentrate on more important tasks, thus also improving worker safety.

##### Easy Calling



From the user's point of view, Tait PTTToX works the same as the LMR network they are used to. The radio controls are the same and any numbering schemes are the same.

Please contact your Tait representative for further details, and to sign up to the PTTToX service subscription

## TMX450 / Tait Unified Vehicle

### TMX450 / Tait Unified Vehicle Remote App

With TMX450 / Tait Unified Vehicle you can make and receive radio calls from smart devices connected to the WiFi Vehicle Area Network.

#### SAFER WORKERS, LESS EQUIPMENT CARRIED

The TMX450 / Tait Unified Vehicle Remote App enhances the communications hub 50m around a worker's vehicle. This means that workers without a portable radio can still hear calls or make calls when they're working away from the radio in their vehicle – particularly emergency calls, greatly improving their safety.

This also reduces the number of items a worker needs to carry – many organizations do not want multiple devices being carried by their teams in the field. If they are using a smartphone to provide a voice service over cellular or to run business related applications, they will not want another device to control their radio

The Remote App is free to download for both iOS and Android devices, and is supported as standard out of the box with every TMX450 / Tait Unified Vehicle.

#### TMX450 / TAIT UNIFIED VEHICLE REMOTE APP



#### SMARTPHONE INTERFACE FOR TM9300 OR TM9400 MOBILE RADIO

The TMX450 / Tait Unified Vehicle Remote application provides users with extended mobile radio functionality. By allowing users to wirelessly connect an Android or iOS device to a mobile radio, users are able to make and receive group and emergency calls, and receive individual calls using their phone, over the radio network.

The application connects to a TMX450 / Tait Unified Vehicle capable mobile radio using a peer-to-peer wifi connection and allows users to maintain communications when outside of and away from the vehicle.

WiFi connectivity to the TMX450 / Tait Unified Vehicle is required for the Remote App to operate. Connectivity is variable and dependent on several factors including the installation position, correct configuration, surrounding obstacles, smartphone type, distance from the TMX450 / Tait Unified Vehicle. With an external antenna, a WiFi 'bubble' with typical range of 60-100m clear line of sight, 40-60m obscured is possible to achieve.

Please refer to the TMX450 / Tait Unified Vehicle Remote Application Users Guide for full information on how to setup and use this application.



## TMX450 / Tait Unified Vehicle

### TMX450 / Tait Unified Vehicle Voice Recorder

Many public safety organizations and critical infrastructure providers around the world have a requirement to record all voice communications. The TMX450 / Tait Unified Vehicle On-Board Voice Recorder records and stores all voice calls sent and received through TMX450 / Tait Unified Vehicle, regardless of network or bearer, giving you instant web access to recordings for audits, evidence or training purposes.



### TMX450 / TAIT UNIFIED VEHICLE VOICE RECORDER



### RECORD EVERY VOICE CALL FOR POST-INCIDENT INSIGHTS

On-board voice recording enables an audit or post incident review of transmissions sent and received through your TMX450 / Tait Unified Vehicle, including simplex or direct mode transmissions.

While many radio systems have voice recording for all network traffic, those systems are not able to record off-network calls. Voice recordings can be downloaded via a WiFi connection. The on-board voice recording application will record all audio transactions, both transmit and receive.

The voice recordings can be accessed via the TMX450 / Tait Unified Vehicle web interface (a web portal). If a time source is available the files will be time-stamped, if a time source is not available they will be recorded in chronological order. Over 100 hours of radio traffic recordings can be saved on a 16GB SD card. Once the card reaches capacity it will start overwriting the older files.

#### Features:

- Filter and Sort Call – Easily navigate through large numbers of recordings to find the call you're looking for with extensive filter and sort options
- Quick Playback – Listen to calls instantly with smart devices connected to Tait Unified Vehicle via WiFi through the secure web application using a web browser
- View Waveform and ID – Waveform representations of calls including radio IDs enable you to instantly see when and where different radio users were on the call, allowing you to easily skip to the relevant over
- Rich Metadata – View detailed call information such as source, destination, type, duration, bearer and location
- Export to WAV file – Download, play, and share the audio files of calls of interest for legal compliance, post-incident insights, or training purposes

## TMX450 / Tait Unified Vehicle

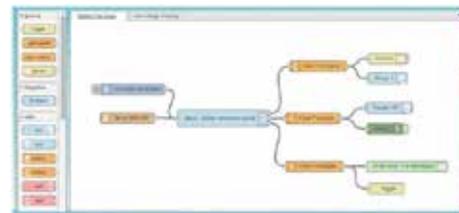
### TMX450 / Tait Unified Vehicle AppBuilder

Powered by Node-RED, the AppBuilder is designed to easily program and control TMX450 / Tait Unified Vehicle functions and interaction with the range of devices, networks and applications you have available. You can build your own custom applications to operate just the way you need to, or ask Tait to develop an application for you.

#### TMX450 / TAIT UNIFIED VEHICLE APPBUILDER



Behaviors Interface



Workflows (Node) Interface

#### CREATE CUSTOM APPS FOR YOUR ORGANIZATION

A significant capability of TMX450 / Tait Unified Vehicle is provided by the Tait AppBuilder application. A flexible, purpose-designed tool, which allows channel partners, integrators and customers to easily design simple applications that are able to control radio functions and connectivity. It is essentially a “build your own application” tool.

Simply put, based on an event or chain of events, the TMX450 / Tait Unified Vehicle can be programmed to deliver an action(s) based on a workflow designed to deliver a customer's required outcome.

Possible applications are vast, and examples include Weather Alerts for operator safety, Broadcast alerts such as lightning proximity, Electronic Signage Control management, Event Detection, Task Dispatching, MQTT Integration, Store and forward data collection, Vehicle blackbox, and many more!

AppBuilder is also being used for Alarm Handling, Device Control, Serial Port integration, Geo-location, and Geo-fencing applications.

You can create AppBuilder applications as behaviors or workflows that define how an interface or capability is used, and how its inputs and outputs are used. Behaviors and workflows can be executed side by side, and can be accessed via Tait Unified Vehicle web user interface.

#### LICENSING STRUCTURE

- ■ **TAPP020 Developer Licence – Behaviors** – required once only per partner/customer, to allow access to build applications using the “Behaviors” functionality.
- ■ **TAPP030 Developer Licence – Advanced** – required once only per partner/customer, to allow access to build applications using both the “Behaviors” functionality or NodeRed workflows.
- ■ **TAPP010 Run-time Licence** – required per radio, to enable an unlimited number of applications/behaviors to run in that radio..

## TMX450 / Tait Unified Vehicle

### TMX450 / Tait Unified Vehicle Upgrade Kits

Please refer to the TMX450 / Tait Unified Vehicle 2.0 Selection Guide & Upgrade Instructions 402-00104-XX before purchasing upgrade kits. A TM9455 or TM9355 mobile with standard firmware can be upgraded to a TMX450 / Tait Unified Vehicle. The radio serial number will be required so that an API enabler SFE key can be obtained free of charge for the unit being upgraded.

For use with both DMR and P25 TMX450 / Tait Unified Vehicle. Please contact your Tait Regional Representative for advice on which kit will best suit your needs.



#### TMX450 / TAIT UNIFIED VEHICLE FIXED HEAD UPGRADE KIT

##### UPGRADING FROM FIXED HEAD

These kits are to upgrade from TM9355/9455 "Dash Mount" (also known as "Local" or "Fixed" control head configurations) as the starting point.

Upgrade Kit Tait Unified Vehicle Fixed Head No Cell NoAnt	 <b>TU2000-M000-0000-000A-10</b>
Upgrade Kit Tait Unified Vehicle Fixed Head No Cell x1Ant	 <b>TU2000-M300-0000-000A-10</b>
Upgrade Kit Tait Unified Vehicle Fixed Head European Cell x3Ant	 <b>TU2000-M200-0000-000A-10</b>
Upgrade Kit Tait Unified Vehicle Fixed Head North American Cell x3Ant	 <b>TU2000-M400-0000-000A-10</b>
Upgrade Kit Tait Unified Vehicle Fixed Head Asia/Pacific Cell x3Ant	 <b>TU2000-M600-0000-000A-10</b>

##### Kit includes:

- T02-00009-0103 – Cable Shielded 8 Core with RJ45 Grommet 6m (20ft)
- T02-00083-AAAA – TM93/94 Large Control Head Remote Head End Terminated

#### TMX450 / TAIT UNIFIED VEHICLE REMOTE HEAD UPGRADE KIT

##### UPGRADING FROM REMOTE HEAD

These kits are to upgrade from TM9355/9455 radios that already have a remote kit configuration as the starting point.

Upgrade Kit Tait Unified Vehicle Remote Head No Cell NoAnt	 <b>TU2000-M000-0000-000B-10</b>
Upgrade Kit Tait Unified Vehicle Remote Head No Cell x1Ant	 <b>TU2000-M300-0000-000B-10</b>
Upgrade Kit Tait Unified Vehicle Remote Head European Cell x3Ant	 <b>TU2000-M200-0000-000B-10</b>
Upgrade Kit Tait Unified Vehicle Remote Head North American Cell x3Ant	 <b>TU2000-M400-0000-000B-10</b>
Upgrade Kit Tait Unified Vehicle Remote Head Asia/Pacific Cell x3Ant	 <b>TU2000-M600-0000-000B-10</b>

## TMX450 / Tait Unified Vehicle

### TMX450 / Tait Unified Vehicle Upgrade Kits (continued)

Please refer to the TMX450 / Tait Unified Vehicle 2.0 Selection Guide & Upgrade Instructions 402-00104-XX before purchasing upgrade kits. A TM9455 or TM9355 mobile with standard firmware can be upgraded to a TMX450 / Tait Unified Vehicle. The radio serial number will be required so that an API enabler SFE key can be obtained free of charge for the unit being upgraded.

For use with both DMR and P25 TMX450 / Tait Unified Vehicle.



#### TMX450 / TAIT UNIFIED VEHICLE WIFI TO CELLULAR UPGRADE KIT

##### UPGRADING FROM WIFI ONLY TO WIFI AND CELLULAR

These kits are to upgrade from an Internal WiFi (no antenna) or External WiFi (1 antenna) configuration as the starting point.

Upgrade Kit Tait Unified Vehicle WiFi to European Cell x 3Ant

 **TU2000-M200-0000-000C-10**

Upgrade Kit Tait Unified Vehicle WiFi to No Cell

 **TU2000-M300-0000-000C-10**

Upgrade Kit Tait Unified Vehicle WiFi to North American Cell

 **TU2000-M400-0000-000C-10**

Upgrade Kit Tait Unified Vehicle WiFi to Asia/Pacific Cell

 **TU2000-M600-0000-000C-10**

## TMX450 / Tait Unified Vehicle

### TMX450 / Tait Unified Vehicle Antennas

TMX450 / Tait Unified Vehicle with WiFi capabilities require an external antenna. External antenna extends the WiFi bubble, with a typical expected range of 60-100m clear line of sight, or 40-60m obscured. The external antenna must be ordered separately.

#### TMX450 / TAIT UNIFIED VEHICLE ANTENNAS



WiFi Only

Multi-Bearer

KIT UVe Ant-Multi-Element Ext No Adptr

 T05-00031-0003

KIT UVe Ant-Wifi 2.4/5GHz Ext SMA

 T05-00031-0004

#### Features:

- **Multi-Bearer Antenna** are compliant for the WiFi and Cellular releases of TMX450 / Tait Unified Vehicle. These antenna kits contain an antenna element and cable for 2.4GHz and 5GHz WiFi bands, and an additional antenna element and cables (with RX diversity, and downlink MIMO support) for cellular.
- **WiFi Only Antenna** are suitable where only WiFi is going to be utilized on TMX450 / Tait Unified Vehicle. Increases WiFi coverage that can be achieved compared with the internal WiFi antenna. This antenna operates in both the 2.4GHz and 5GHz bands.

# OPTIONS & ACCESSORIES

**The right choice of accessories can optimize and complete the communications experience**

A Tait mobile radio is not a solitary product, it supports a range of great accessories. We recommend tailoring each user's experience to suit their industry and role. Select the hand held control head that provides the most flexibility and control of your mobile radio, allowing users to stay connected while moving within the vehicle. Upgrade your new or existing Tait TM9400 or TM9300 radios to TMX450 / Tait Unified Vehicle hardware.

The right audio accessories, like speakers and microphones, can make team communication much more effective. Optimizing audio performance means calls can be heard first time during normal operations and emergencies, keeping channels clear for other users.



## Speakers and Microphones

### Speaker Comparison

This comparison table is a quick guide to the Tait Standard and Rugged External Speakers. These speakers are mounted externally to the radio body. The Standard External Speaker is not designed to be mounted outside the vehicle. The Rugged External Speaker can be mounted inside or outside a vehicle.



Large Control Heads and 2-Digit Control Heads have a 3W internal speaker as standard.



	STANDARD EXTERNAL SPEAKER	RUGGED EXTERNAL SPEAKER
<b>For 25W mobiles</b>	T02-00004-0204	T02-00004-0206
<b>For 30-50W mobiles</b>	T02-00004-0205	T02-00004-0207
<b>Power Output</b>	10W	15W
<b>Physical Dimensions</b>	135mm x 75mm x 60mm (W x H x D) 5.3" x 3.0" x 2.4" (W x H x D)	150mm x 120mm x 60mm (W x H x D) 5.9" x 4.7" x 2.4" (W x H x D)
<b>Environmental – Ingress Protection (IP) rating</b>	None – only for installation inside vehicle cabins	Waterproof – IP67
<b>Wire two speakers in parallel?</b>	No	Yes

	STANDARD SPEAKER	EXTERNAL SPEAKER OPTIONS
<b>TM9315</b>	3W Internal to the Control Head	Standard 10W External Speaker 15W Rugged External Speaker
<b>TM9355, TM9455 and TMX450 / Tait Unified Vehicle Large Control Head</b>	3W Internal to the Control Head	Standard 10W External Speaker 15W Rugged External Speaker
<b>TM9355, TM9455 and TMX450 / Tait Unified Vehicle Hand Held Control Head</b>	10W External Speaker	Standard 10W External Speaker 15W Rugged External Speaker

## Speakers and Microphones

### Rugged External Speaker

This Rugged External Speaker delivers class-leading high quality audio, ideal for high noise environments such as emergency services, mining, and transport. Built for critical communication, this speaker has been tailored to enhance voice intelligibility, and has an optimized voice frequency response to cut through unwanted background noise. This speaker is mounted externally to the radio body, and can be mounted inside the vehicle cabin, or outside.



#### RUGGED EXTERNAL SPEAKER



TM Rugged External Speaker 15W for 25W Radio  **T02-00004-0206**

TM Rugged External Speaker 15W for 30-50W Radio  **T02-00004-0207**

#### Features:

- 15W power output – delivers high quality intelligible audio, perfect for work in noisy environments.
- Built for critical communication
  - Tait Tough glass-fibre reinforced nylon housing and strong metal bracket, perfect for environments with high vibration
  - IP67 Waterproof and dustproof rating
  - Suitable for exterior mounting, designed to withstand the elements
  - Water shedding grille
  - Twin neodymium magnets for high efficiency and loud audio
  - Max input 20W, fully compatible with Tait mobile radios
  - 2 x Rugged External Speakers can be installed in parallel (higher impedance prevents overloading the output of Tait mobile radios)
- Speaker angle can be easily adjusted then fixed in place to prevent rotation
- Speaker can be cleaned with a damp cloth and can withstand household detergents
- Easy installation
  - Package includes a 5m extension cable with a quick connector at each end

**Size:** W 150mm (5.9"), H 120mm (4.7"), D 60mm (2.4")

**Weight:** 560g

**Operating temperature:** -30°C to +80°C

#### For use with:

TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

## Speakers and Microphones

### Speakers

The right speakers and microphones can help you do your job more safely and effectively. Whether your team operates in a particularly noisy environment, or has a need for a variety of microphones, Tait offers a range of Mobile audio accessories to make sure voice calls get through loud and clear.

#### EXTERNAL SPEAKER



TM External Speaker 10W for 25W Radio

 **T02-00004-0204**

TM External Speaker 10W for 30-50W Radio

 **T02-00004-0205**

#### Features:

- 10W Power Output
- This speaker is mounted externally to the radio body, and can be mounted inside the vehicle cabin (not intended for outdoor use)
- Size: 135mm (5.3") x 75mm (3.0") x 60mm (2.4") (W x H x D)

#### For use with:

TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

#### HORN SPEAKER KIT



TM Horn Speaker Kit 112dB SPL for 25W Radio

 **T02-00004-0201**

TM Horn Speaker Kit 112dB SPL for 30-50W Radio

 **T02-00004-0202**

#### Features:

- Can be mounted externally on the vehicle – allows radio traffic to be heard when personnel are outside the vehicle
- Connects to the radio's speaker out terminals
- Supplied with a 20ft (6m) extension cable and a flying lead

#### For use with:

TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

*Note: The Horn Speaker and External Speaker cannot be used simultaneously. If it is desired to switch audio between the Horn Speaker and a Remote Speaker, use a double-pole double-throw switch with a current rating  $\geq 2A$ .*

## Speakers and Microphones

### Microphones

The right speakers and microphones can help you do your job more safely and effectively. Whether your team operates in a particularly noisy environment, or has a need for a variety of microphones, Tait offers a range of Mobile audio accessories to make sure voice calls get through loud and clear.

#### STANDARD & KEYPAD MICROPHONE FEATURES

- ▶ The microphone button operates a **hookswitch**, which is closed when the microphone is connected to the microphone clip, and open when the microphone is removed from the microphone clip. The function of this hookswitch is determined by the way the radio is programmed.

#### STANDARD MICROPHONE



TM Standard Microphone TDMA

 T02-00005-AAAA

TM Standard Microphone TDMA 3m Curly Cord  T02-00005-AABA

#### Features:

- Standard mic for use when number dialling or text entry is not required
- Radio menu can be navigated via the control head keys, including preset messages and calls that do not require a keypad.

#### For use with:

TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

#### KEYPAD MICROPHONE



TM Keypad Microphone TDMA

 T02-00005-ABAA

TM Keypad Microphone TDMA 3m Curly Cord  T02-00005-ABBA

#### Features:

- Twelve alphanumeric keys used to enter text and to dial numbers to make calls to other individual radios or groups, or to dial PABX or PSTN telephone numbers (if the network is configured to allow such calls)
- Two scroll keys (up/down) and left and right selection keys duplicate the keys on the control head, enabling you to navigate the radio menu and functions from a distance.

#### For use with:

TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

## Speakers and Microphones

### Microphones (continued)

The right speakers and microphones can help you do your job more safely and effectively. Whether your team operates in a particularly noisy environment, or has a need for a variety of microphones, Tait offers a range of Mobile audio accessories to make sure voice calls get through loud and clear.

#### DESKTOP MICROPHONE



TM Desktop Microphone TDMA

 **T02-00005-ACAA**

#### Features:

- Omnidirectional electret microphone
- PTT key, function key, monitor key, monitor LED
- For use in dispatch situations
- For use on flat surfaces, connected to the microphone socket on the radio control head

#### For use with:

TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

#### TELEPHONE HANDSET



TM Telephone Handset TDMA 10ft (3m) Cable  **T02-00004-0101**

TM Telephone Handset TDMA 20ft (6m) Cable  **T02-00004-0102**

#### Features:

- When receiving a call with the handset mounted in its locking cradle, you can hear the call from your radio's internal speaker, and any connected remote speaker. Removing the handset from its cradle when receiving a call additionally allows the call to be heard from the handset earpiece.
- If private handset mode is programmed, the radio's internal and external speakers are muted, and the call can only be heard from the handset earpiece when lifted off the hook.
- The handset uses an electret microphone, and comes with the handset-to-radio cord prewired to the handset mounting plate connecting to the microphone socket on the radio control head.

#### For use with:

TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

## Speakers and Microphones

### Microphones (continued)

Remote Microphones can be installed for easy use while driving, enabling the driver to keep their hands on the steering wheel without having to reach for a microphone and hold it to their mouth while driving.

Remote microphones are installed in proximity to the drivers normal head position.

- ▶ Handsfree microphone for use with radios programmed for voice operation (VOX) that will transmit when voice is detected
- ▶ Remote PTT + microphone installs a PTT button on the steering wheel or within easy reach.

#### HANDSFREE MICROPHONE



#### TM Handsfree Microphone TDMA

T02-00005-ADAA

##### Features:

- Uses a remote electret microphone to replace the usual rugged microphone. The rugged microphone can still be used and provide hookswitch operation, if required
- Can be used for voice-operated transmission (VOX), if supported by the radio, or combined with an alternative PTT switch
- Connects to the radio's auxiliary connector

##### For use with:

TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

#### HANDSFREE MICROPHONE + REMOTE PTT



Handsfree Microphone



Remote PTT

#### TM Remote PTT + Microphone TDMA

T02-00005-ADCA

##### Features:

- Uses a remote electret microphone to replace the usual rugged microphone. The rugged microphone can still be used and provide hookswitch operation, if required
- Remote PTT button can be placed on a steering wheel or within easy reach
- Connects to the radio's auxiliary connector

##### For use with:

TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

## Control Heads

### Large Control Heads

Large Control Heads (also known as Graphical Control Heads) enable users to see a range of information (subject to various hardware and software configurations) such as encryption status, signal strength, channel numbers, caller ID, location information, contact lists, text messages, radio settings, work order tickets and notifications.

Large Control Heads can be mounted in a dash/fixed/local configuration connected directly to the radio body, or can be mounted separate to the radio body via remote kits. Large Control Heads have a built-in 3W speaker, can be used with a range of microphones such as standard or keypad microphones.

**LOCAL LARGE CONTROL HEAD**

TM93 Large Control Head Local Blk		<b>T02-00071-AAAA</b>
TM94 Large Control Head Local Blk		<b>T02-00071-AAAB</b>
TM93 Large Control Head Local Yel		<b>T02-00071-AABA</b>
TM94 Large Control Head Local Yel		<b>T02-00071-AABB</b>
TM93 Large Control Head Local Grn		<b>T02-00071-AAEA</b>
TM94 Large Control Head Local Grn		<b>T02-00071-AAEB</b>

**REMOTE LARGE CONTROL HEAD**

TM93 Large Control Head Primary Remote Terminated ID2 Blk		<b>T02-00071-CAAA</b>
TM94 Large Control Head Primary Remote Terminated ID2 Blk		<b>T02-00071-CAAB</b>
TM93 Large Control Head Primary Remote Terminated ID2 Yel		<b>T02-00071-CABA</b>
TM94 Large Control Head Primary Remote Terminated ID2 Yel		<b>T02-00071-CABB</b>
TM93 Large Control Head Primary Remote Terminated ID2 Grn		<b>T02-00071-CAEA</b>
TM94 Large Control Head Primary Remote Terminated ID2 Grn		<b>T02-00071-CAEB</b>

## Large Control Head

### Large Control Heads

Large Control Heads (also known as Graphical Control Heads) enable users to see a range of information (subject to various hardware and software configurations) such as encryption status, signal strength, channel numbers, caller ID, location information, contact lists, text messages, radio settings, work order tickets and notifications.

Large Control Heads can be mounted in a dash/fixed/local configuration connected directly to the radio body, or can be mounted separate to the radio body via remote kits. Large Control Heads have a built-in 3W speaker, can be used with a range of microphones such as standard or keypad microphones.

#### REPLACEMENT LARGE CONTROL HEAD

TM9300 Spare Mech Kit TM93 Lge CHD Blk  **T02-00032-0001**

TM9400 Spare Mech Kit TM94 Lge CHD Blk  **T02-00032-0002**

#### Kit Includes:

- Spares kits T02-00032-0001 (TM9300) and T02-00032-0002 (TM9400) contain an assembled control head without control head board, concealed microphone and LCD assembly



## Large Control Head Remote Kits

### Single Head



Tait provides a range of Control Head Remote Kits in 3 cable lengths – 6m, 12m, or 18m. These kits include all the components you will need to remotely mount the radio body and control head of your Tait Mobile Radio.

Remote Head Kits and Remote Head Upgrade Kits can be used to install one control head remotely from the radio body of TM9300 and TM9400 radios.

For fixed/local/dashmount mobiles where a Large Control Head (LCH) is attached directly to the body, the **Upgrade Kits** contain the parts required to convert to a remote kit that separates the LCH from the radio body – a remote head end, body end, and cable to connect the two.

For mobiles with a LCH already fitted with a remote head end, the **Single Remote Kit** is more appropriate, as this contains only the body end and cable.

#### UPGRADE KIT 6M (20FT)

TM93/94 Remote Head Upgrade Kit 6m (20ft)  **T02-00061-2001**

##### Kit Includes:

- T02-00009-0103 – Cable Shielded 8 Core with RJ45 Grommet 6m (20ft)
- T02-00081-AAAA – TM93/94 Control Head Remote Body End Multi Head Terminated+Bias
- T02-00083-AAAA – TM93/94 Large Control Head Remote Head End Terminated

##### For use with:

TM9300, TM9400

#### SINGLE REMOTE KIT 6M (20FT)

TM93/94 Single Rmt Kit 6m (20ft)  **T02-00061-3001**

##### Kit Includes:

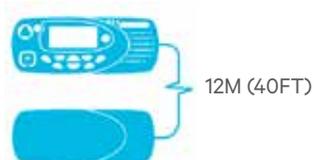
- T02-00009-0103 – Cable Shielded 8 Core with RJ45 Grommet 6m (20ft)
- T02-00081-AAAA – TM93/94 Control Head Remote Body End Multi Head Terminated+Bias

##### For use with:

TM9300, TM9400, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

## Large Control Head Remote Kits

### Single Head (continued)



Tait provides a range of Control Head Remote Kits in 3 cable lengths – 6m, 12m, or 18m. These kits include all the components you will need to remotely mount the radio body and control head of your Tait Mobile Radio.

Remote Head Kits and Remote Head Upgrade Kits can be used to install one control head remotely from the radio body of TM9300 and TM9400 radios.

For fixed/local/dashmount mobiles where a Large Control Head (LCH) is attached directly to the body, the **Upgrade Kits** contain the parts required to convert to a remote kit that separates the LCH from the radio body – a remote head end, body end, and cable to connect the two.

For mobiles with a LCH already fitted with a remote head end, the **Single Remote Kit** is more appropriate, as this contains only the body end and cable.

#### UPGRADE KIT 12M (40FT)

TM93/94 Remote Head Upgrade Kit 12m (40ft)  **T02-00061-2002**

##### Kit Includes:

- 2 x T02-00009-0103 – Cable Shielded 8 Core with RJ45 Grommet 6m (20ft)
- T02-00081-AAAA – TM93/94 Control Head Remote Body End Multi Head Terminated+Bias
- T02-00083-AAAA – TM93/94 Large Control Head Remote Head End Terminated
- T02-00088-AAAA – TM93/94 Control Head Interface Box (Power/Dual Head)

##### For use with:

TM9300, TM9400

#### SINGLE REMOTE KIT 12M (40FT)

TM93/94 Single Rmt Kit 12m (40ft)  **T02-00061-3002**

##### Kit Includes:

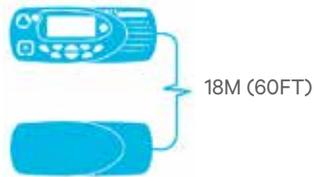
- 2 x T02-00009-0103 – Cable Shielded 8 Core with RJ45 Grommet 6m (20ft)
- T02-00081-AAAA – TM93/94 Control Head Remote Body End Multi Head Terminated+Bias
- T02-00088-AAAA – TM93/94 Control Head Interface Box (Power/Dual Head)

##### For use with:

TM9300, TM9400, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

## Large Control Head Remote Kits

### Single Head (continued)



Tait provides a range of Control Head Remote Kits in 3 cable lengths – 6m, 12m, or 18m. These kits include all the components you will need to remotely mount the radio body and control head of your Tait Mobile Radio.

Remote Head Kits and Remote Head Upgrade Kits can be used to install one control head remotely from the radio body of TM9300 and TM9400 radios.

For fixed/local/dashmount mobiles where a Large Control Head (LCH) is attached directly to the body, the **Upgrade Kits** contain the parts required to convert to a remote kit that separates the LCH from the radio body – a remote head end, body end, and cable to connect the two.

For mobiles with a LCH already fitted with a remote head end, the **Single Remote Kit** is more appropriate, as this contains only the body end and cable.

#### UPGRADE KIT 18M (60FT)

TM93/94 Remote Head Upgrade Kit 18m (60ft) ■ ■ **T02-00061-2003**

##### Kit Includes:

- T02-00009-0103 – Cable Shielded 8 Core with RJ45 Grommet 6m (20ft)
- T02-00009-0104 – Cable Shielded 8 Core with RJ45 Grommet 12m (40ft)
- T02-00081-AAAA – TM93/94 Control Head Remote Body End Multi Head Terminated+Bias
- T02-00083-AAAA – TM93/94 Large Control Head Remote Head End Terminated
- T02-00088-AAAA – TM93/94 Control Head Interface Box (Power/Dual Head)

##### For use with:

TM9300, TM9400

#### SINGLE REMOTE KIT 18M (60FT)

TM93/94 Single Rmt Kit 18m/60ft ■ ■ **T02-00061-3003**

##### Kit Includes:

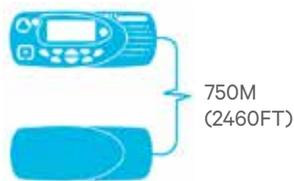
- T02-00009-0103 – Cable Shielded 8 Core with RJ45 Grommet 6m (20ft)
- T02-00009-0104 – Cable Shielded 8 Core with RJ45 Grommet 12m (40ft)
- T02-00081-AAAA – TM93/94 Control Head Remote Body End Multi Head Terminated+Bias
- T02-00088-AAAA – TM93/94 Control Head Interface Box (Power/Dual Head)

##### For use with:

TM9300, TM9400, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

## Large Control Head Remote Kits

### Single Head (continued)



The Remote Head Extender Full Upgrade Kits can be used when extended distances are required between a TM9300 or TM9400 radio body and a graphical-display control head. This enables the control head to be installed away from the radio body, in difficult or isolated locations up to a maximum of 750m.

The full upgrade kits include a pair of transmit/receive extender boxes to provide the necessary buffering and protection of signals for longer distances, and a control-head interface box to locally re-power the control head..

### REMOTE HEAD EXTENDER FULL UPGRADE KIT



Remote Control Head Interface



Remote U-bracket



Control Head Interface Box (incl. plug pack)



Remote Cables



Remote Body Interface



Remote Control Head Extender Box

TM93/94 Remote Head Extender Full Upgrade Kit AUS/NZ		<b>T02-00064-2001</b>
TM93/94 Remote Head Extender Full Upgrade Kit US		<b>T02-00064-2002</b>
TM93/94 Remote Head Extender Full Upgrade Kit EU		<b>T02-00064-2003</b>
TM93/94 Remote Head Extender Full Upgrade Kit UK		<b>T02-00064-2004</b>

#### Kit Includes:

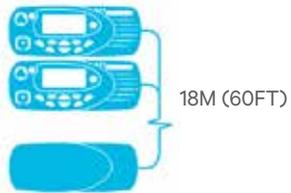
- T02-00009-0101 – Cable Shielded 8 Core with RJ45 Grommet 0.6m (2ft)
- T02-00009-0103 – Cable Shielded 8 Core with RJ45 Grommet 6m (20ft)
- T02-00081-AAAA – TM93/94 Control Head Remote Body End Multi Head Terminated+Bias
- T02-00083-AAAA – TM93/94 Large Control Head Remote Head End Terminated
- T02-00088-AAAA – TM93/94 Control Head Interface Box (Power/Dual Head)
- T02-00088-CAAA – TM93/94 Control Head Remote Extender Box - Plug Pack for your region

#### For use with:

TM9300, TM9400

## Large Control Head Remote Kits

### Dual Head



Dual Control Heads can be used to control a mobile radio from two different locations – for example, this could be the front and rear of a vehicle, or two different desks in an office dispatch situation.

Refer to **page 49** for more information on Control Head Configurations.



### TM9300/TM9400 DUAL REMOTE HEAD UPGRADE KIT 18M (60FT)

TM9300 Dual Remote Head Upgrade Kit 18m (60ft)  **T02-00062-2001**

TM9400 Dual Remote Head Upgrade Kit 18m (60ft)  **T02-00062-2002**

#### Kit Includes:

- Large Control Head Secondary Remote Un-Term NTID=4 Black
- T02-00009-0103 – Cable Shielded 8 Core with RJ45 Grommet 6m (20ft)
- T02-00009-0104 – Cable Shielded 8 Core with RJ45 Grommet 12m (40ft)
- T02-00081-AAAA – TM93/94 Control Head Remote Body End Multi Head Terminated+Bias
- T02-00083-AAAA – TM93/94 Large Control Head Remote Head End Terminated
- T02-00088-AAAA – TM93/94 Control Head Interface Box (Power/Dual Head)

#### For use with:

TM9300, TM9400

## Hand Held Control Heads

Tait Hand Held Control Heads (HHCH) allows for total installation flexibility, in-vehicle mobility, and total control of your Mobile Radio. The radio unit can be installed wherever it is most convenient: behind the seat, under the dash, or in the trunk, and the HHCH can be mounted within easy reach of the operator.

The standard coiled cord is 1.8m (5.9 ft) long, and will stretch to 3m (9.8 ft).

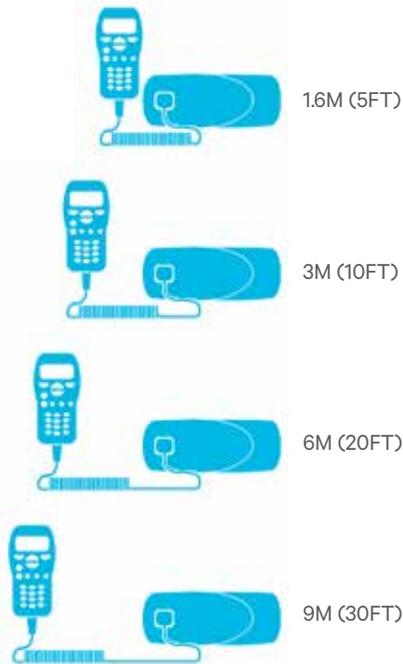
The HHCH enables users to see a range of information (subject to various hardware and software configurations) such as encryption status, signal strength, channel numbers, caller ID, location information, contact lists, text messages, radio settings, work order tickets and notifications. The HCHH makes the radio display and controls easily accessible from a number of locations, such as the rear seat, or even standing outside the vehicle, rather than being limited to a Large Control Head mounted only within reach of the driver. The HHCH does not have an internal speaker – please select the External Speaker of your choice (refer to **page 13**).

**HAND HELD CONTROL HEAD**



TM9300 HHCH Black	<b>T02-00073-AAAA</b>
TM9400 HHCH Black	<b>T02-00073-AAAB</b>
TM9300 HHCH Yellow	<b>T02-00073-AABA</b>
TM9400 HHCH Yellow	<b>T02-00073-AABB</b>
TM9300 HHCH Red	<b>T02-00073-AADA</b>
TM9400 HHCH Red	<b>T02-00073-AADB</b>
TM9300 HHCH Green	<b>T02-00073-AAEA</b>
TM9400 HHCH Green	<b>T02-00073-AAEB</b>

## Hand Held Control Head Remote Kits



The standard coiled cord is 1.8m (5.9 ft) long, and will stretch to 3m (9.8 ft). An optional extension cable adds 6m (19.6 ft).

### HAND HELD CONTROL HEAD KIT



TM9300 Hand Held Control Head Kit

**T02-00063-1001**

TM9400 Hand Held Control Head Kit

**T02-00063-1002**

TM93/94 HHCH Combiner Cables & Interface Box Install Kit

**T02-00063-2001**

#### Kit Includes:

- T02-00081-AAAA – TM93/94 Control Head Remote Body End Multi Head Terminated+Bias
- TM9300 or TM9400 HHCH Primary NTID=2 Black

#### For use with:

TM9300, TM9400

### CABLE SHIELDED 8 CORE RJ45M/F EXT



Cable Shielded 8 Core RJ45M/F Ext 1.6m (5ft)

**T02-00009-0201**

Cable Shielded 8 Core RJ45M/F Ext 3m (10ft)

**T02-00009-0202**

Cable Shielded 8 Core RJ45M/F Ext 6m (20ft)

**T02-00009-0203**

Cable Shielded 8 Core RJ45M/F Ext 9m (30ft)

**T02-00009-0204**

#### Features:

- These extender cable kits can be used to extend the distance between a Hand Held Control Head and the radio body or a remote interface box.

#### For use with:

TM9300, TM9400, TM8200, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

*NOTE: Only the 3m (T02-00009-0202) and 6m (T02-00009-0203) cables are compatible for use with Tait Unified Vehicle*

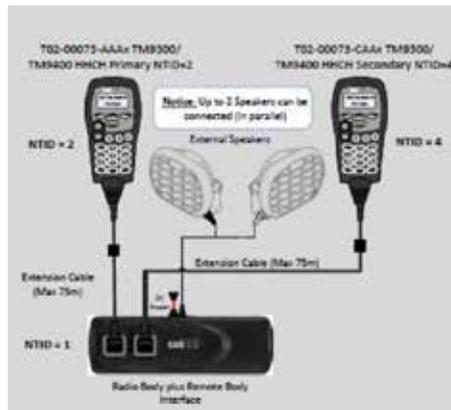
## Hand Held Control Head Remote Kits

### Dual Head



Dual Control Heads can be used to control a mobile radio from two different locations – for example, this could be the front and rear of a vehicle, or two different desks in an office dispatch situation.

### TM9300/TM9400 SECONDARY HHCH



Suggested Configuration

TM9300 Secondary Hand Held Control Head Black ■■ T02-00073-CAAA

TM9400 Secondary Hand Held Control Head Black ■■ T02-00073-CAAB

#### Features:

- The Secondary HHCH is used in a Dual HHCH configuration, in combination with 3 x T02-00009-0203 6M Extension cables

#### For use with:

TM9300, TM9400

*Note: If external speakers are required, Dual HHCH configuration is only compatible with the Rugged External Speaker (refer to page 14)*

## Control Heads

### Other Control Heads

#### 2-DIGIT CONTROL HEAD



#### 2-Digit Control Head

 **T02-00076-AAAA**

##### Features:

- Spare/replacement control head for a TM9315 mobile radio
- TMAA22-01 Spares Casing 2-Digit Control Head Kit also available: contains an assembled 2-digit-display control head without the control-head board.
- Spares kit does not include the optional parts of the concealed microphone.

#### PROGRAMMING CONTROL HEAD



#### TM93/94 Programming Control Head

 **T02-00085-AAAA**

##### Features:

- Spare/replacement control head for TM9395 mobile radio
- The TM9395 is designed for custom integration solutions that do not require a Tait control head, such as integration to 3rd party user interface for voice and data operation, or for data only operation that does not require a user interface

## Installation

### Hand Held Control Head Interface Boxes

Simplify any Hand Held Control Head (HHCH) installation with the addition of a HHCH Interface Box. The HHCH Interface Box is highly useful for any remote kit installation, where a mobile radio body is installed in a separate location to the control head. For example if a radio body is installed in the trunk of a vehicle, or under a seat, the HHCH Interface Box can be used as an easy access point to connect the remote control head and a variety of accessories such as External Speaker, Handsfree Microphone or Remote PTT, or Ignition sense, without needing to run multiple cables back to the radio body. A number of options are available to suit various use cases.

Contact your Tait representative for further advice.



#### HAND HELD CONTROL HEAD INTERFACE BOX AND COMBINER CABLES



#### TM93/94 HHCH Combiner Cables and Interface Box Install Kit

**T02-00063-2001**

##### Description:

- Simplify any installation with easy access to a variety of cabling and accessory options (pictured below)
- For use with Hand Held Control Head remote kits

##### Kit includes

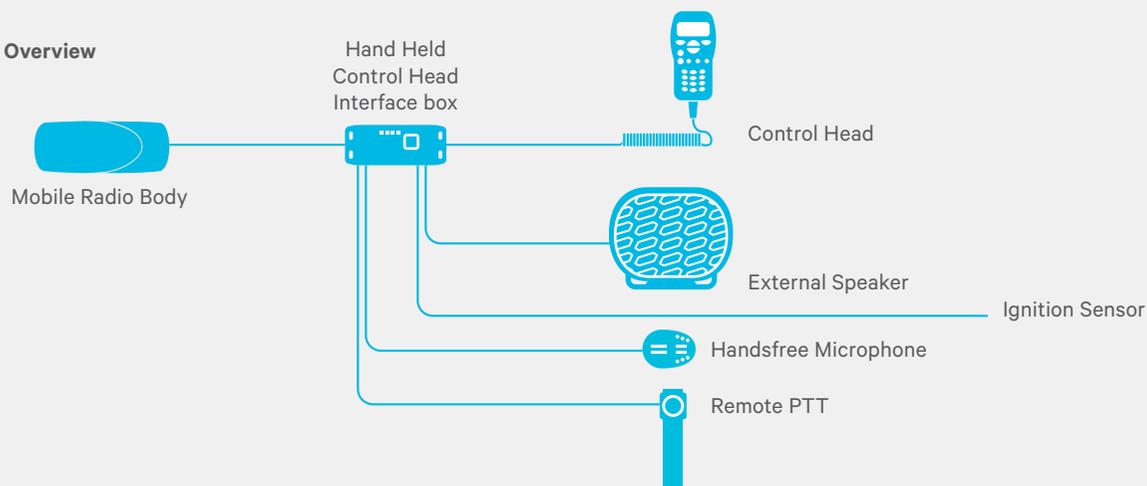
- T02-00088-BAAA - TM93/94 Hand Held Control Head Interface Box
- Remote Interface Combiner cable
- Remote Interface Extension Cable (DB15M to DB15M 6m)
- Ignition Sense Loom

##### For use with:

TM9300, TM9400, TM8000, TM9100

*Note: the kit does not include an External Speaker, Remote PTT or Handsfree Microphone*

#### Install Overview



## Installation

### Hardware

Conveniently install your Tait Mobile Radio in your vehicle or office, with hardware or cable only options or with a full installation kit.

#### KIT MOBILE MOUNT U-CRADLE



#### Kit Mobile Mount U-Cradle

 **T02-00026-2001**

##### Features:

- Install hardware only – select cable separately from Cables section
- Designed to provide enough airflow around the radio body for cooling

##### For use with:

TM9300, TM9400, TM8000, TM9100, P25 Tait Unified Vehicle, DMR Tait Unified Vehicle

#### KIT MOBILE MOUNT SECURITY



#### Kit Mobile Mount Security

 **T02-00026-2002**

##### Features:

- Install hardware only – select cable separately from Cables section

##### For use with:

TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

## Installation

### Hardware (continued)

Conveniently install your Tait Mobile Radio in your vehicle or office, with hardware or cable only options or with a full installation kit.

#### KIT MOBILE MOUNT UNIVERSAL



#### Kit Mobile Mount Universal

 **T02-00026-2004**

##### Features:

- Allows TM8000 and TM9000 mobile radios to be securely mounted for use in a vehicle
- Suitable for high and low power mobile radios
- Can be fitted to a surface using the base plate, or DIN mounted using the two slotted holes on each side of the mount body (four in total)

##### For use with:

TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

#### INSTALL KIT SLIDE IN CRADLE



#### Install Kit BNC 25W Slide in Cradle

 **TMAA03-18**

#### Install Kit MUHF 25W Slide in Cradle

 **TMAA03-39**

##### Features:

- Only suitable for 25W mobile radios
- Select the appropriate kit for your antenna connector (BNC or mini-UHF)

##### For use with:

TM9300, TM9400, TM8000, TM9100

## Installation

### Hardware (continued)

Conveniently install your Tait Mobile Radio in your vehicle or office, with hardware or cable only options or with a full installation kit.

#### KIT MOBILE MOUNT DUAL BODY CRADLE



#### Kit Mobile Mount Dual Body Cradle

**T02-00026-2006**

##### Features:

- Allows for two TM8000 or TM9000 mobile radios to be mounted on top of each other for use in dual-band or multiple radio installations
- Accommodates both regular sized control heads (2-digit, 3-digit, blank) and Large Control Heads (see images)
- Can be mounted upside down

##### For use with:

TM9300, TM9400, TM8000, TM9100

#### KIT MOBILE MOUNT HHCH CRADLE



#### Kit Mobile Mount Hand Held Control Head Cradle

**T02-00026-2007**

##### Features:

- Allows the HHCH to be held rigidly for single-handed operation (no rotation), while remaining secured in the standard HHCH mounting clip
- Constructed with powder coated rigid steel plate and highly resilient silicone rubber bumpers

##### For use with:

TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

*NOTE: Does not include the HHCH Mounting Clip - this clip comes standard with HHCHs*

## Installation

### Cables

Conveniently install your Tait Mobile Radio in your vehicle or office, with hardware or cable only options or with a full installation kit.

#### CABLE SHIELDED 8 CORE WITH RJ45 GROMMET



- Cable Shielded 8 Core with RJ45 Grommet 0.6m (2ft) ■ T02-00009-0101
- Cable Shielded 8 Core with RJ45 Grommet 1.5m (4.92ft) ■ T02-00009-0102
- Cable Shielded 8 Core with RJ45 Grommet 6m (20ft) ■ T02-00009-0103
- Cable Shielded 8 Core with RJ45 Grommet 12m (40ft) ■ T02-00009-0104
- Cable Shielded 8 Core with RJ45 Grommet 3m (10ft) ■ T02-00009-0105

**Features:**

- Cable Only

**For use with:**

TM9300, TM9400, TM8200, TM9100

#### MOBILE POWER CABLE KIT



- Kit Mobile Cable BNC 25W ■ T02-00026-1001
- Kit Mobile Cable M-UHF 25W ■ T02-00026-1002
- Kit Mobile Cable BNC 30-50W ■ T02-00026-1003
- Kit Mobile Cable M-UHF 30-50W ■ T02-00026-1004

**Features:**

- Fuse, fuse holder, coax plug for antenna cable

**For use with:**

TM9300, TM9400, TM8000, TM9100

## Installation

### Cables (continued)

Conveniently install your Tait Mobile Radio in your vehicle or office, with hardware or cable only options or with a full installation kit.

#### TELEMETRY CABLE/HORN RELAY



Cable Breakout Telemetry/Horn

 T02-00034-ABAA

#### Features:

- Provides a line for ignition sense and a relay driver for switching a 12V relay
- User to connect to the input and output lines of the auxiliary connector of TM8000 and TM9000 mobile radios

#### For use with:

TM9300, TM9400, TM8000

#### CABLE AUX SPLITTER 1x15W PLUG TO 2x15W SOCKET



Cable Aux Splitter 1x15W Plug to 2x15W Socket

 T02-00009-0302

#### Features:

- Cable only

#### For use with:

TM9300

## Installation

### Cables (continued)

Conveniently install your Tait Mobile Radio in your vehicle or office, with hardware or cable only options or with a full installation kit.

#### CABLE IGNITION SENSE 4M (13.12FT)



#### Cable Ignition Sense 4m (13.12ft)

 T02-00034-EAAA

#### Features:

- Provides a mating plug for the radio's auxiliary connector
- The 13ft cable from pin 4 of the plug connects to the vehicle's ignition signal
- Once installed, the ignition signal is used to power up and power down the radio, so that when the vehicle ignition is turned off, the radio turns off too

#### For use with:

TM9300, TM9400, TM8000, TM9100

## Installation

### Cables (continued)

Conveniently install your Tait Mobile Radio in your vehicle or office, with hardware or cable only options or with a full installation kit.

#### CROSSBAND LINKING CABLE



Cable Crossband Linking DB15 to DB15 1.5m

 TMAA04-04

#### Features:

- Connects the auxiliary connectors of two radios configured as a crossband repeater
- Components in this cable are optimized for voice applications

#### For use with:

TM9300, TM8000, TM9100

#### CROSSBAND LINKING, GPS, AND EXTERNAL INTERFACE CABLE



Cable Crossband Link & GPS/ext-IF DB15 – DB15/ RJ45 1.5m (4.92ft)

 TMAA04-06

#### Features:

- Extends the features available within Dual Body Radio systems by:
  - Connecting to both radios' auxiliary ports, so the radio system can be used as a temporary cross-band repeater
  - Providing an RJ45 socket to connect a Garmin TMAA05-0x GPS antenna
  - Providing an external interface connector. This can be used to power the radio system on using ignition sense, and also connect to an external alert device

#### For use with:

TM9300, TM8000, TM9100

## Installation

### Kits

Conveniently install your Tait Mobile Radio in your vehicle or office, with hardware or cable only options or with a full installation kit.

#### U-CRADLE MOBILE INSTALL KIT



Kit Mobile Install BNC 25W U-Cradle	 <b>T02-00026-4001</b>
Kit Mobile Install M-UHF 25W U-Cradle	 <b>T02-00026-4002</b>
Kit Mobile Install BNC 30-50W U-Cradle	 <b>T02-00026-4003</b>
Kit Mobile Install MUHF 30-50W U-Cradle	 <b>T02-00026-4004</b>

#### Kit Includes:

- Cable kit as described (BNC or M-UHF, 25W or 30-50W)
- T02-00026-2001 – Kit Mobile Mount U-Cradle

#### For use with:

TM9300, TM9400, TM8000, TM9100

*NOTE: Select the right kit for the corresponding mobile radio antenna connection (BNC or M-UHF) and power output (25W or 30-50W)*

#### UNIVERSAL MOUNT MOBILE INSTALL KIT

Kit Mobile Install BNC 25W Universal	 <b>T02-00026-4009</b>
Kit Mobile Install MUHF 25W Universal	 <b>T02-00026-4010</b>

#### Kit Includes:

- 25W Cable kit as described (BNC or M-UHF)
- T02-00026-2004 – Kit Mobile Mount Universal

#### For use with:

TM9300, TM9400, TM8000, TM9100

*NOTE: Select the right kit for the corresponding mobile radio antenna connection (BNC or M-UHF)*

## Desktop Power Supplies

### Desktop Power Supply

Choose the appropriate mains cable for your region.

Radio mounting bracket is required.

*Note: Please choose a desktop installation kit from [page 41](#).*

**DESKTOP POWER SUPPLY**



Power Supply Unit front



Power Supply Unit rear



Mains cable

Desktop Power Supply 13V8 23A DC ANZ	<span style="color: yellow;">■</span>	<b>T02-00036-AABA</b>
Desktop Power Supply 13V8 23A DC US/CAN	<span style="color: cyan;">■</span>	<b>T02-00036-AACA</b>
Desktop Power Supply 13V8 23A DC UK	<span style="color: yellow;">■</span>	<b>T02-00036-AADA</b>
Desktop Power Supply 13V8 23A DC EU	<span style="color: cyan;">■</span>	<b>T02-00036-AAEA</b>

**Features:**

- Switched-mode power supply, converting mains input voltage to regulated 13.8VDC using pulse-width modulation (PWM) control
- This unit is protected against short circuits and over-current, over-voltage conditions
- Features over-temperature shutdown

**For use with:**  
 TM9300, TM9400, TM8000, TM9100, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

## Desktop Installation

### Hardware

Conveniently install your Tait Mobile Radio in your office with hardware or cable only options or with a full desktop installation kit.

#### DESKTOP PLINTH MOUNT KIT



Kit Desktop Mount Desktop Plinth

 T02-00026-3001

#### Features:

- Used for desktop installation of mobile radios
- Can be placed on a desk or on the T02-00036-xxxx Universal Input Power Supply Unit (see [page 39](#))

#### For use with:

TM9300, TM9400, TM8000, TM9100

#### DESKTOP U-CRADLE MOUNT KIT



Kit Mobile Mount Desktop UCrdl

 T02-00026-3002

#### Features:

- Used for desktop installation of mobile radios
- The U-cradle can be attached to the T02-00036-xxxx Universal Input Power Supply Unit or any other even surface (see [page 39](#))

#### For use with:

TM9300, TM9400, TM8000, TM9100,

## Desktop Installation

### Desktop Installation Kits

Conveniently install your Tait Mobile Radio in your office with hardware or cable only options or with a full desktop installation kit.

#### DESKTOP PLINTH INSTALL KITS

Kit Desktop Install BNC 25W Plinth	 <b>T02-00026-4013</b>
Kit Desktop Install MUHF 25W Plinth	 <b>T02-00026-4014</b>
Kit Desktop Install BNC 30-50W Plinth	 <b>T02-00026-4015</b>
Kit Desktop Install MUHF 30-50W Plinth	 <b>T02-00026-4016</b>

**Kit Includes:**

- Cable kit as described (BNC or M-UHF, 25W or 30-50W)
- T02-00026-3001 – Kit Mobile Mount Desktop Plinth

**For use with:**

TM9300, TM9400, TM8000, TM9100

*NOTE: Select the right kit for the corresponding mobile radio antenna connection (BNC or M-UHF) and power output (25W or 30-50W)*

#### U-CRADLE DESKTOP INSTALL KIT

Kit Desktop Install BNC 25W U-Cradle	 <b>T02-00026-4017</b>
Kit Desktop Install M-UHF 25W U-Cradle	 <b>T02-00026-4018</b>
Kit Desktop Install BNC 30-50W U-Cradle	 <b>T02-00026-4019</b>
Kit Desktop Install M-UHF 30-50W U-Cradle	 <b>T02-00026-4020</b>

**Kit Includes:**

- Cable kit as described (BNC or M-UHF, 25W or 30-50W)
- T02-00026-3002 – Kit Mobile Mount Desktop UCrdl

**For use with:**

TM9300, TM9400, TM8000, TM9100

*NOTE: Select the right kit for the corresponding mobile radio antenna connection (BNC or M-UHF) and power output (25W or 30-50W)*

## Option Boards

### Option Boards

Option Boards provide interface connectivity, and increase the versatility and effectiveness of your Mobile Radio.

These Option Boards allow your radio to connect to other third-party systems such as telephone networks, alarm panels and building management systems.

The Options Boards fit inside the radio in the options cavity and is connected to the main PCB by the internal options connector and loom.

#### LINE INTERFACE BOARD KIT



Line-interface Board



Installation Parts



D-range hood parts

#### Kit Line Interface Board

 **T02-00007-ABAA**

##### Features:

- The T02-00007-ABAA line-interface board provides both audio and digital interfaces for a variety of systems. The interfaces available are:
  - An isolated 600Ω audio interface that is capable of both simplex operation on a two-wire system, or duplex operation on a four-wire system
  - A keying interface which allows for two-wire keying or single line bi-directional keying
  - A variable delay timer
  - A logic sense control

##### For use with:

TM9300, TM9400, TM8000, TM9100

#### RS232 INTERFACE BOARD KIT



RS232 interface Board



Installation Parts



D-range hood parts

#### Kit RS232 Interface Board

 **T02-00007-BAAA**

##### Features:

- The T02-00007-BAAA board provides a suitable interface to external devices requiring full RS-232 level compatibility. As well as supporting transmit and receive data lines, the board also supports RTS and CTS hardware flow control lines.

##### For use with:

TM9300, TM9400, TM8000, TM9100

## Option Boards

### Option Boards (continued)

Option Boards provide interface connectivity, and increase the versatility and effectiveness of your Mobile Radio.

These Option Boards allow your radio to connect to other third-party systems such as telephone networks, alarm panels and building management systems.

The Options Boards fit inside the radio in the options cavity and is connected to the main PCB by the internal options connector and loom.

#### WIFI OTAP UPGRADE BOARD KIT

Upgrade Kit Remote Head NoCell x1Ant  **TU2000-M300-0000-000B-10**

Upgrade Kit Fixed Head NoCell x1Ant  **TU2000-M300-0000-000A-10**

#### Features:

- Save time on updating and maintaining radio programming with WiFi OTAP
- Cost-effective option for when TMX450 / Tait Unified Vehicle is not required
- Provides Voice Recorder and Remote App features
- WiFi OTAP requires Tait EnableFleet
- The Tait mobile radio must have a remote head – if your radio currently has a fixed head, please select the **TU2000-M300-0000-000A-10** option to also upgrade to a Large Control Head. Dual head/body radios not supported.

#### For use with:

TM9300, TM9400

#### TEAMPTT LINE INTERFACE BOARD KIT

Kit TeamPTT Line Interface Board  **T02-00007-ACAA**

#### Features:

- Required to connect a mobile radio to the Tait TeamPTT server through a TN8271 Network Gateway. This allows Tait TeamPTT users to make group calls on the radio network through the Tait TeamPTT mobile radio and to participate in group call initiated on the radio network.

#### For use with:

TM9300, TM9400

## Option Boards

### Option Boards (continued)

Option Boards provide interface connectivity, and increase the versatility and effectiveness of your Mobile Radio.

These Option Boards allow your radio to connect to other third-party systems such as telephone networks, alarm panels and building management systems.

The Options Boards fit inside the radio in the options cavity and is connected to the main PCB by the internal options connector and loom.

The Option Boards featured on this page are for use in **analog applications only**.

OPTION BOARD (ANALOG USE ONLY)	
Audio Interface Board (Full Isolation)	TA2922
Spare Kit Vehicle PA Option Board	TA3140-01
Options Extender Board	TMAA01-05
8-wire Line Interface -10dBm in -10dBm out	TA2922-01
2-wire Line Intfc -6.5dBm in -6.5dBm out-No load	TA2922-02
6-wire Line Intfc-10.4dBm in +1.6dBm out-No load	TA2922-03
Helicop Line Intfc -10.4dBm in spkr out-No load	TA2922-04
6-wire Line Interface -10dBm in -10dBm out	TA2922-06

## GNSS Receivers & Accessories

### External GNSS Receivers and Accessories

Tait works with specialist partners to deliver integrated location solutions that enable our clients to safely and efficiently manage their field operations.

A key element of a location solution is Automatic Vehicle Location (AVL), which is the reporting of the current position of mobile assets (i.e. people and vehicles) on a map using Global Navigation Satellite Systems (GNSS) such as GPS.

GNSS-compatible Tait equipment transmits location data across analog and digital networks.

#### GPS RECEIVER TALLYSMAN



TW5242 Magnetic Mount



TW5342 Thru-hole Mount

GPS Ant/Rx TW5242 Magnetic Mount w/ign-sense ■ **T02-00025-1002**

GPS Ant/Rx TW5342 Thru-hole Mount w/ign-sense ■ **T02-00025-1003**

GPS Ant/Rx TW5242 Magnetic Mount w/o ign-sense ■ **T02-00025-1004**

GPS Ant/Rx TW5342 Thru-hole Mount w/o ign-sense ■ **T02-00025-1005**

#### Features:

- Ideal for use in professional grade digital tracking/positioning applications
- Essential accessory to enable Location Services and Tait GeoFencing for Tait mobile radios
- uBlox M8 multi-constellation GNSS receiver provides 72 high sensitivity tracking channels + SBAS
- Ability to output NMEA 0183 message lists with navigation update rate of up to 5Hz
- 5V-36V automotive operation
- Dual feed Accutenna technology with pre and post filtering provides superior multi-path signal rejection and improves immunity to jamming typical within urban environments
- Industrial grade enclosures (TW5242 - IP67 / TW5342 - IP69K)
- Magnetic mount or Thru-hole mount as described, both with 5m cable
- Ignition Sense:
  - **T02-00025-1002/-1003** – These two models are intended for customers wishing to power up and power down the radio using a vehicle's ignition signal. They incorporate ignition sense hardware (including a 30cm flying lead), thereby eliminating the need for the separate ignition sense kit T02-00034-EAAA (and the T02-00009-0302 Aux Splitter Cable). Companion kit T02-00026-5001 is available to facilitate the extension of the ignition sense wire from 30cm to 4m, if required. This kit also includes a 3A fuse, a fuse holder and crimp terminals.
  - **T02-00025-1004/-1005** – These two models are recommended for customers who are not using a vehicle ignition signal to power up and power down the radio.

#### For use with:

TM9300, TM9400, P25 TMX450 / Tait Unified Vehicle, DMR TMX450 / Tait Unified Vehicle

## GNSS Receivers & Accessories

### External GNSS Receivers and Accessories (continued)

Tait works with specialist partners to deliver integrated location solutions that enable our clients to safely and efficiently manage their field operations.

A key element of a location solution is Automatic Vehicle Location (AVL), which is the reporting of the current position of mobile assets (i.e. people and vehicles) on a map using Global Navigation Satellite Systems (GNSS) such as GPS.

GNSS-compatible Tait equipment transmits location data across analog and digital networks.

#### GPS RECEIVER GARMIN FLUSH MOUNT



**GPS Receiver Garmin Flush Mount** ■ TMAA05-01

**Features:**

- Integrates a high performance 12-channel GPS receiver into a fully weatherproof, IPX7-rated housing
- Includes an adapter for connecting to the mobile radio auxiliary connector
- Operates at a frequency of 1575.42MHz (±10MHz)

**For use with:**  
TM9300, TM9400, TM8000, TM9100

#### MOUNT KITS FOR GPS RECEIVER GARMIN MOUNT



Magnetic Mount



Plate Mount

**Magnetic Mount Kit For TMAA05-01** ■ TMAA05-02

**Plate Mount Kit For TMAA05-01** ■ TMAA05-03

**Features:**

- Compatible with the Garmin GPS Receiver (TMAA05-01)
- The Plate Mount (TMA05-03) is used to permanently mount the GPS receiver to a flat surface

**For use with:**  
TM9300, TM9400, TM8000, TM9100

## GNSS Receivers & Accessories

### External GNSS Receivers and Accessories (continued)

Tait works with specialist partners to deliver integrated location solutions that enable our clients to safely and efficiently manage their field operations.

A key element of a location solution is Automatic Vehicle Location (AVL), which is the reporting of the current position of mobile assets (i.e. people and vehicles) on a map using Global Navigation Satellite Systems (GNSS) such as GPS.

GNSS-compatible Tait equipment transmits location data across analog and digital networks.

#### GPS RECEIVER GARMIN MAGNETIC MOUNT



#### GPS Receiver Garmin Magnetic Mount

 **TMAA05-04**

##### Features:

- Integrates a high performance 12-channel GPS receiver into a fully weatherproof, IPX7-rated housing
- Identical to TMAA05-01, but includes a magnetic mount (TMAA05-02)
- Includes an adapter for connecting to the mobile radio auxiliary connector
- Operates at a frequency of 1575.42MHz ( $\pm 10$ MHz)

##### For use with:

TM9300, TM9400, TM8000, TM9100

#### TM93/94 GPS ANTENNA IN-VEHICLE MOUNTING



#### TM93/94 GPS Antenna In-Vehicle Mounting

 **T02-00025-1001**

##### Features:

- High performance, 66-channel GPS receiver
- Operates at a frequency of 1575.42MHz ( $\pm 10$ MHz)
- Designed for installation inside a vehicle
- Supplied with a square of industrial standard 3M double-sided tape, and a connector cable (connects to TM8000/TM9000 auxiliary connector)
- Can be installed on the windscreen behind the rearview mirror, on the dashboard at the front of the vehicle, or on the parcel tray at the vehicle rear

##### For use with:

TM9300, TM9400, TM8000, TM9100

## Programming & Calibration Kits

Tools, adaptors, and cables for programming, managing and servicing Tait Mobile Radios.

PARTS		COMPATIBLE WITH:
USB to RJ11 Programming Cable	 <b>T03-00118-0601</b>	All Tait Radios
Adaptor RJ45 to DB9 Adaptor	 <b>TMAA20-02</b>	TM8105 blank head only
Adaptor RJ12 Socket/RJ45 Plug	 <b>TMAA20-04</b>	TM9000, TM8000
Radio Power Connector to Banana Plug	 <b>TMAA20-03</b>	All 25W mobile radios
Cable DB15 Socket/RJ45 Plug	 <b>TMAA21-01</b>	TM9000, TM8000

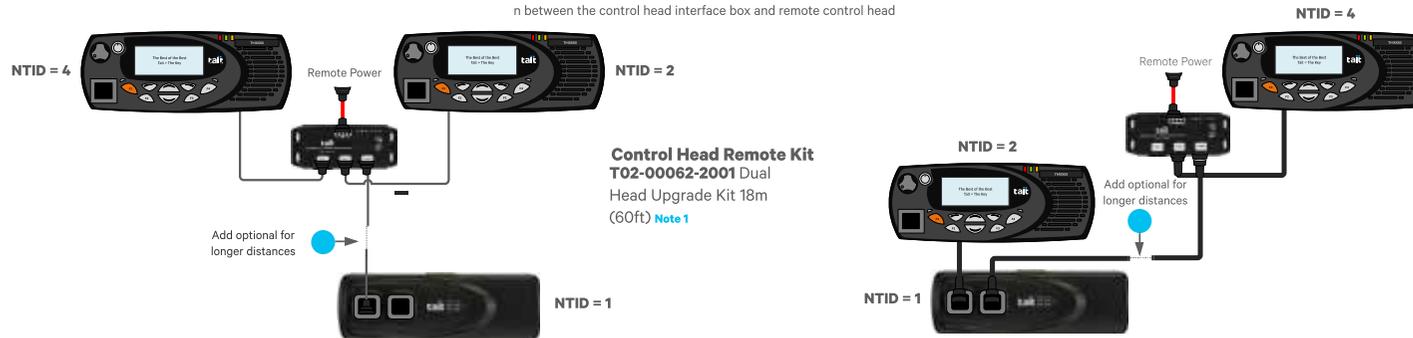
  

KITS		COMPATIBLE WITH
TM81/82/93/TP81/93 Programming & Calibration Kit:		
T03-00118-0101 – TP8100 Programming Adapter T03-00118-0601 – USB to RJ11 Programming Cable TMAA20-02 – Adaptor RJ45 to DB9 Adaptor TMAA20-03 – Cable 25W Radio Power Connector to Banana Plug TMAA20-04 – Adaptor RJ12 Socket/RJ45 Plug TMAA23-02 – Cable 50W Radio Power Connector to Banana Plugs	 <b>T02-00031-0001</b>	TM9300, TM8000
P25 Terminals Programming & Calibration Kit:		
T03-00118-0101 – TP8100 Programming Adapter T03-00118-0601 – USB to RJ11 Programming Cable TMAA20-03 – Cable 25W Radio Power Connector to Banana Plug TMAA20-04 – Adaptor RJ12 Socket/RJ45 Plug TMAA23-02 – Cable 50W Radio Power Connector to Banana Plugs	 <b>T02-00031-0002</b>	TM9400
TM81/82/91/93/94 Service Kit:		
T03-00118-0601 – USB to RJ11 Programming Cable TMAA20-03 – Cable 25W Radio Power Connector to Banana Plug TMAA20-04 – Adaptor RJ12 Socket/RJ45 Plug TMAA21-01 – Cable DB15 Socket/RJ45 Plug TMAA23-02 – Cable 50W Radio Power Connector to Banana Plugs TOPA-SV-024 – Terminals Calibration Box	 <b>T02-00031-0007</b>	TM9300, TM9400, TM8000, TM9100

# TM9300/TM9400 Control Head Configurations

## Single Body Dual Remote Control Head

A remote cable of up to 98ft (30m) is allowed between the radio body and the control head interface box a remote cable of up to 20ft (6m) is also allowed in between the control head interface box and remote control head



## Single Body Remote Control Head

A remote cable of up to 98ft (30m) is allowed between the radio body and the control head interface box a remote cable of up to 20ft (6m) is also allowed in between the control head interface box and remote control head

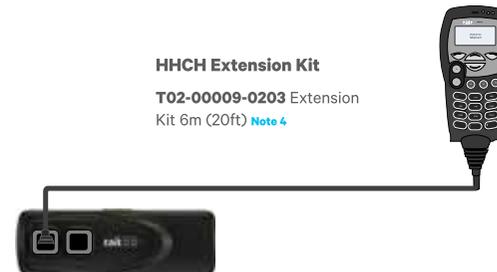


A remote cable of up to 20ft (6m) is allowed between the radio body and the remote control head



## Single Body Remote HHCH

A remote cable of up to (<85m) is allowed between the radio body and the HHCH **Note 4**



### Optional Kit T02-00064-2xxx

The Remote Head Extender Upgrade Kit can be used when extended distances are required between a TM9300 or TM9400 radio body and a graphical-display control head. This enables the control head to be installed away from the radio body, in difficult or isolated locations **(up to a maximum of 750m)**

### Single Body with Head



### Single Body with HHCH



**Note 1:** The dual-head upgrade kit provides one complete remote head, one remote control head interface which is fitted to an existing local control head and one control head interface box.

**Note 2:** The remote upgrade kit provides a remote control head interface which is fitted to an existing local control head. Kits for remote head installations > 20ft (6m) contain two remote cables and one control head interface box.

**Note 3:** The remote upgrade kit provides a remote control head interface which is fitted to an existing local control head.

**Note 4:** The kit can be used to extend the distance between a hand-held control head HHCH and the radio body <30m. If distances greater than this (up to 200ft/60m) are required, allowances must be made for the remote speaker extension.

