

PRODUCT BULLETIN

VRF Split Case Outdoor Unit (SMMS-*i*, SMMS-*e*, & SHRM-*i*)

- UK Mainland - Standard or Full Separation
- Off-shore - Standard or Full Separation

***** EASIER INSTALLATION FOR LIMITED ACCESS SITES *****

TOSHIBA are pleased to confirm split case processes to enable easier installation of VRF outdoor unit in locations that have limited or no access by means of craneage or by mechanical lifting equipment. Split case outdoor units are available for SMMS-*i*, SMMS-*e* and SHRM-*i* models.

1. Outdoor Unit Models



2. Split Case Type UK Mainland (Price on application)

TTS-VRFSD-ML Standard separation outdoor unit split into 2 sections (compressor and heat exchanger sections)
 TTS-VRFSD-MLF Full separation outdoor unit split into component parts (refrigerant and mechanical components)

3. Split Case Type Off-shore (Price on application)

TTS-VRFSD-OS Standard separation outdoor unit split into 2 sections (compressor and heat exchanger sections)
 TTS-VRFSD-OSF Full separation outdoor unit split into component parts (refrigerant and mechanical components)

4. Split Case Outdoor Unit - INCLUDED

Standard separation; reclaim factory shipped refrigerant charge; remove all adjoining side panels; separate compressor and heat exchanger sections; all separated refrigerant lines sealed; refrigerant components sealed; all separated components packaged; all assembly components (fixings etc.) packaged separately; components shipped on three separate pallets; dimensions and weights for shipped items will be proportionate to original sizes i.e. up to 800mm x 990mm x 780mm and 250kg; and delivery “kerbside” only.

Full separation; reclaim factory shipped refrigerant charge; remove all side panels; remove fan assembly; separate heat exchanger from base assembly; all separated refrigerant lines sealed; refrigerant components sealed; all separated components packaged; all assembly components (fixings etc.) packaged separately; components shipped on three separate pallets; dimensions and weights for shipped items will be proportionate to original sizes i.e. up to 800mm x 1660mm x 780mm and up to 250kg (SMMS_e 22HP); and delivery “kerbside” only.

Please note: the shipped factory charge of R410A refrigerant recovered from the outdoor unit prior to deconstruction (approximately up to 11.5kg per outdoor unit) can be re-used by the customer. To facilitate this reuse the customer must provide a certified refrigerant recovery cylinder(s) **prior to commencement of the deconstruction works**. If this service is adopted the refrigerant recovery cylinder(s) will be shipped with the Split Case outdoor unit(s) otherwise new R410A virgin refrigerant must be sourced by the customer to replenish the factory refrigerant charge.

5. Split Case Outdoor Unit – REQUIRED BY THE CUSTOMER for TOSHIBA

- a. A safe level working area clear of debris and suitable for brazing works must be provided
- b. Outdoor unit split case base fixed in its final installed position on framework(s) or mounting plinth(s) suitable for the equipment size and weight.
- c. Weather protection provided by others in the event of prevailing adverse weather conditions to ensure continuous working.
- d. Prior notification of a least one working week for any site induction course(s). Please note additional charges shall apply at Toshiba's standard day rates.
- e. Hot works permit must be arranged prior to works commencing and must be available prior to site attendance.
- f. Any required site access equipment.
- g. Local adjacent access to a 230 volts single phase electrical power supply.

6. Split Case Outdoor Unit – EXCLUDED by TOSHIBA

- a. Delivery cost to "kerbside" is carriage chargeable extra.
- b. On site-off loading; it is the responsibility of the customer to handle and position the "kerbside" delivered goods to a location immediately adjacent to the installation site.
- c. Installation works for air conditioning system.
- d. Commissioning works for air conditioning system.
- e. Refrigerant charge for air conditioning system.
- f. Site access equipment; craneage and mechanical lifting equipment.
- g. Any guarantee that Split Case supplied apparatus is suitable for any limited site access restriction which is the responsibility of the customer to check and ensure that all will fit.
- h. Any other items not specifically mentioned.

7. Additional charges will apply for: -

- Incomplete or unsuitable framework/mounting plinth that prevents site installation.
- Lack of a suitable electrical power supply to enable works.
- Lack of suitable access equipment to enable safe working.
- Adverse weather conditions and or lack of any suitable weather protection.
- Any item or matter that prevents continuous working caused by others.

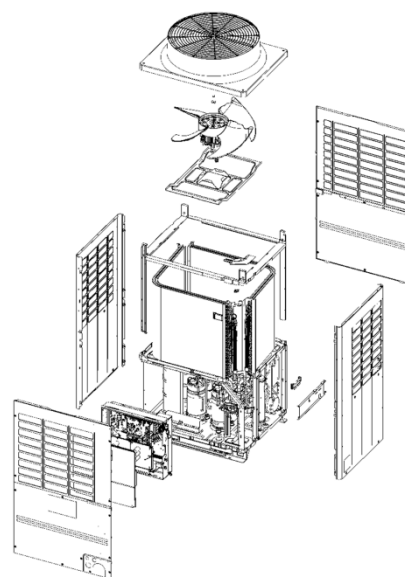
8. Split Case Outdoor Unit – AVAILABILITY

Normally within 10 working days from date of order subject to equipment being available ex-stock.

**SPLIT CASE
Standard Separation**



**SPLIT CASE
Full Separation**



For further information please contact our customer support team on 0870 843 0333, your local representative, your supplier of **TOSHIBA** products or email any enquiries to: - general.enquiries@toshiba-ac.com

SPLIT CASE PROCEDURES FOR VRF OUTDOOR UNIT

The outdoor unit requires careful reassembly. It has been deconstructed from its factory built state, to facilitate installation in a location that has limited or no access by means of craneage or by mechanical lifting equipment.

Prior to deconstruction the equipment has been FULLY run and tested.

During the deconstruction process of the respective refrigerant components OXYGEN FREE NITROGEN (OFN) has been used at ALL TIMES during hot works processes to disconnect refrigerant lines.

ALL refrigeration components are shipped with sealed ends to prevent and eliminate any possible moisture contamination.

Shipment is separated into three separate pallets per unit, each pallet contains components required to reassemble the outdoor unit.



■ OUTDOOR UNIT REASSEMBLY REQUIREMENTS

1. Split Case outdoor unit(s) is delivered "kerbside". It is the responsibility of the customer to handle and position the delivered goods to a location immediately adjacent to the installation site.
2. Toshiba F-Gas qualified technician and assistant will reassemble the outdoor unit.
3. A safe level working area clear of debris and suitable for brazing works must be provided. Hot works permit must be arranged prior to works commencing and must be available prior to site attendance.
4. Suitably sized Oxy-Acetylene brazing equipment, brazing rods and flux will be used. All pipe joints will be copper to copper.
5. Sufficient quantity of Oxygen Free Nitrogen, (OFN) and associated gauges and lines will be used.
6. General HVAC tools and R410A manifold gauge with lines will be used.

Please note: the shipped factory charge of R410A refrigerant recovered from the outdoor unit prior to deconstruction can be re-used by the customer. To facilitate this re-use the customer must provide a certified refrigerant recovery cylinder(s) prior to commencement of the deconstruction works. If this service is adopted the refrigerant recovery cylinder(s) will be shipped with the Split Case outdoor unit(s) otherwise new R410A virgin refrigerant must be sourced by the customer to replenish the factory refrigerant charge.

We recommend that reassembly of the unit and components should take place under dry conditions.

■ PROCEDURE FOR REASSEMBLY

IMPORTANT

IT IS IMPERATIVE that during the reassembly process, OFN is "Purged" through the system to eliminate and prevent any build-up of "OXIDATION (Carbon Deposits)" and reduce the risk of contamination to the refrigeration system.



In addition to the main pipe connections, the injection pipes will also be reconnected.

The heat exchanger drainage channel will be refitted.



The "Hot Gas Injection Circuit" will be reconnected.





The “base” refrigeration pipes will be reconnected. The pipes are routed through the drain pan assembly Please note all connections are colour coded for easier assembly.

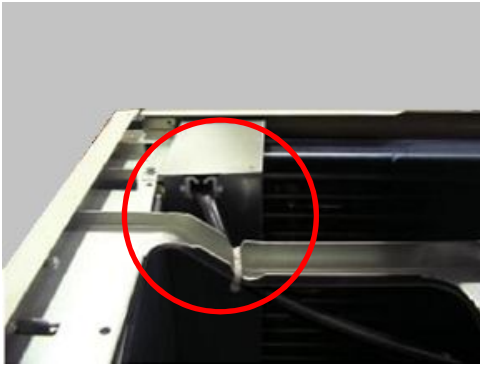
The “Heat Exchanger” will be remounted on the base drain pan assembly. All refrigeration lines are colour coded for easier assembly.



Pipe work after

After assembly of all refrigerant lines the electrical cables will be routed via the front right hand side panel and reconnected.





The discharge fan assembly cables will be routed through from the front right hand side panel and reconnected.

The ambient temperature sensor will be mounted and fixed in front of the heat exchanger



■ COMPLETION & TESTING

 **IMPORTANT**



After reassembly of the internal components the outer casing will be secured with the supplied screws.

On completion of reassembly of the outdoor unit the refrigerant circuit will be "leak and strength" tested in accordance with F-Gas regulations.

On satisfactory completion of pressure testing the outdoor unit will be charged with OFN to 37 bar.

*** Please note all images are for illustration purposes only ***