



Maintenance Manual

VCS



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Welcome to Adande® Refrigeration

1 What is Adande®?

Adande® is a new method of cold storage developed as a series of refrigerated drawers that offer storage temperature flexibility in 1°C increments between –22°C and +15°C.

Each refrigerated drawer:-

- Provides stable temperature storage
- A removable container to act as temporary cool and safe product storage.
- Gives full plan area access providing space efficient storage.
- Is easily cleaned or replaced.

2 Adande® Explained

Adande® uses standard technology and refrigeration parts but in a completely new and patented way.

A dedicated fridge engine supplies refrigerant to an evaporator coil assembly. The evaporator coil assembly then supplies cooling to the insulated container and is sized to maintain up to 40kg of product at any set point temperature, in the range of –22°C to +15°C.



Figure 1: Front view of Adande® Single Drawer

3 EC Declaration of Conformity

We declare that the following machinery complies with the essential health and safety requirements of the :-

The Machinery Directive 2006/42/EC.

The Low Voltage Directive 2006/95/EEC.

The Electromagnetic Compatibility Directive 2004/108/EC.

The Pressure Equipment Directive 97/23/EC.

Machinery Description: 1 Drawer Appliance for Chilled Storage.

Make: Adande®.

Type: Adande unitary drawer refrigeration

Manufactured by Adande Refrigeration Ltd.,

45 Pinbush Road, South Lowestoft Industrial Estate, Lowestoft, Suffolk NR33 7NL

The following transposed harmonised European Standards have been used:

EN ISO 12100 parts 1 & 2 Safety of Machinery – Basic concepts, general principles for design.

EN ISO 13857 Safety of Machinery – Safety distances to prevent danger zones being reached by the upper and lower limbs.

EN ISO 13732-1: 2006 Ergonomics of the thermal environment -- Methods for the assessment of human responses to contact with surfaces -- Part 1: Hot surfaces.

EN 1672-2 Food processing machinery – Basic concepts – Part 2 : Hygiene requirements

EN 61000-6-3:2001, Electromagnetic compatibility (EMC) - Part 6-3: Generic standards; Emission standard for residential, commercial and light- industrial environments

EN 61000-6-1 Generic Immunity Standard; Residential commercial and light industrial environments.

EN 60335-2-24 The Safety of Household and Similar Electrical Appliances – Part 2 –24: Particular Requirements for Refrigerating Appliances and Ice Makers.

EN 60335-2-89:2010 Household and Similar Electrical Appliances – Safety - Part 2 –89: Particular Requirements for commercial refrigerating appliances with an incorporated or remote refrigerant condensing unit or compressor.

The technical file for this machinery will be prepared on demand by :-

Name: Ian Wood

Position: Managing Director

Who also signs on behalf of the manufacturer

ADANDE® REFRIGERATION

45 Pinbush Road

South Lowestoft Industrial Estate

Lowestoft

Suffolk NR33 7NL.

4 Storage of Product

For the drawer to operate at full efficiency the heated seal should be maintained in good condition. It is essential that the product is not stored above the **"MAX FILL LEVEL"** line as this can damage the seal and affect the operation of the drawer.

The drawer is capable of storing any food product. However, products which may give off acidic odours like vinegar, onions, etc should be suitably sealed. Adande® also recommends storage containers with liquid food products be stored with lids.

Ensure that the product is never stacked above the **"MAX FILL LEVEL"** Label in the insulated container.

5 Operating Adande® Temperature Control System

The Adande® temperature control system allows you to set and control the drawer within a temperature range of -22°C (-8°F) and +15°C (59°F).

Temperature accuracy in the drawer will be maintained within $\pm 2^{\circ}\text{C}$ of the set point.

5.1 The Display Controls

To adjust the temperature set point (*figure 2*) press and hold the "i" button, the drawer set point will then be displayed. While holding the "i" button Increase or decrease temperature using the arrow buttons, on release of both buttons the new set point will be stored.



Figure 2: Adande® Display Control Panel

5.2 Defrost

The refrigeration system automatically defrosts. If a manual defrost is required then press the manual defrost button on the control panel for 3 seconds.

5.3 Drawer Alarm

If the drawer is open for more than 3 minutes, the display in the control panel changes to **"DO"**.

When the alarm has been activated, the Adande® unit will alarm both visually and audibly.

To silence the audible alarm, press ANY button on the display, or close the drawer. The alarm light and flashing display will continue to show until the drawer has been fully closed.

NOTE: THERE IS NO COOLING TO THE INSULATED CONTAINER WHEN THE DRAWER IS OPEN.

5.4 Error Alarm

If display reads **"E1"** or **"E2"**, a temperature probe has failed, and an engineer should be called.

The Adande® drawer will operate with a 10 minute on / 10 minute off cycle in the event of an **"E1"** failure. This will help to maintain the stored product at a safe temperature, but precise temperature control will be lost. **"E2"** will only affect defrosts, and these will be timed to maintain operation of the unit. An engineer should be called as soon as possible for either fault.

5.5 Temperature Alarm

If **"HI"** should appear on the display, the drawer temperature has exceeded its set point by 7°C and product core temperature should be checked. This alarm may also be triggered if the Adande® drawer has recently been turned on, loaded with warm product or left open for a long period of time. If the temperature does not return to the set point temperature, an engineer should be called.

If **"LO"** should appear on the display, the drawer temperature has fallen below its set point by 7°C and product core temperature should be checked. This alarm may also be triggered if the Adande® drawer's temperature set point has recently been increased. If the temperature does not return to the set point temperature, an engineer should be called.

6 Display Panel Replacement

To replace a faulty display panel first isolate the power supply, then remove the front grill, (refer to chapter 11).

Next unplug the data ribbon from the back of the controller (figure 3a), then using a flat head screw driver depress the plastic lugs on the display and push the faulty display out of the front grill panel. (figure 3b/3c)

Push the new display into the front grill and click into position (figure 3d), finally plug in the new displays data ribbon into the back of the controller, ensuring that it is fully inserted.

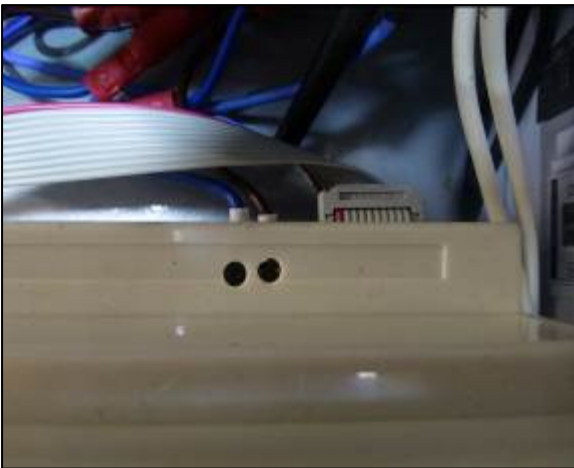


Figure 3a: Data cable input on controller



Figure 3b



Figure 3c



Figure 3d

7 Electrical Connection

The Adande® drawer should be connected to a 230V, single phase, 50 Hz, standard socket outlet supply. The drawer is connected to the mains supply with a detachable supply lead, one end of which is fitted with a standard 13 amp 3 pin plug (fused at 13A). The other end of the supply lead, fitted with an appliance plug, which is connected to the Adande® drawer as shown in *figure 4a* below.



Figure 4a: Mains connection point

The unused socket on the right hand side in *figure 4a* can be used to provide a mains supply to additional Adande® drawers as shown in *figure 4b* below.



Figure 4b: Mains connection point

DO NOT REMOVE ACCESS PANELS WITH THE ELECTRICAL SUPPLY CONNECTED.

8 Location and Stability

It is important that the Adande® drawer is installed and maintained on a flat, clean and **level surface** to ensure correct operation.

The room should be dry and sufficiently ventilated.

Optimum performance is obtained at ambient temperatures between +16°C (60°F) and +38°C (100°F).

The air outlet grill MUST be kept clear at all times to maintain optimum performance.

The Adande® drawer can be mounted on rubber feet, rollers or castors. When mounted on a castor base, the front two castors should have their brakes ON during normal use as in *figure 5*.



Figure 5: Lockable Castor

If the Adande® drawer is mounted on two rollers at the rear and rubber feet at the front, then to move the drawer either lift the front as shown in *figure 6* and push or pull into position, or use an open drawer as a lever to lift, as shown in *figure 7*, this method may be preferable if units are stacked more than one high.



Figure 6



Figure 7

THE INSULATED CONTAINER SHOULD BE UNLOADED BEFORE MOVING

9 Insulated Container Removal

For many of the maintenance procedures the insulated container will need to be removed to allow for access. To remove the insulated container, first pull the drawer out fully so that the rear edge of the container clears the front and the runners are fully extended. Then as the photo below shows (*figure 8*) lift the container vertically up to remove (two people should lift the container out if still filled with product).



Figure 8: Removing the insulated container

10 Worktop Removal

To remove the worktop, first remove the 4 off M5 X 8 ST/ST bolts from the rear of the drawer, lift the rear of the worktop and push slightly forward to slide over and clear from the front retaining slots (*Figure 9*). Replacement is the reverse of the removal procedure.

NOTE: CORRECT LIFTING PROCEDURES SHOULD BE FOLLOWED



Figure 9: Worktop removal

11 Front Grille Removal

To gain access to the electrical components it is necessary to remove the front grille, to do this first remove the insulated container from the drawer, slacken the 2 off M5 X 8 ST/ST bolts located inside the drawer space, and slacken the 2 off M5 X 8 ST/ST screws located externally at the side of the unit. The front grille can now be removed by pulling forward at the bottom and then down. (*figure10*).

NOTE: POWER MUST BE ISOLATED BEFORE REMOVING ANY PANELS

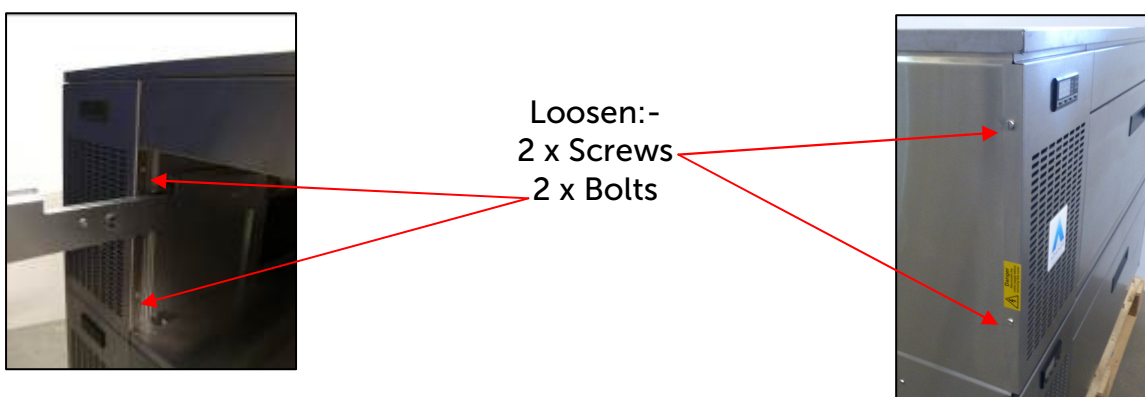


Figure 10: Front grille removal

12 Left Hand Panel Removal

To gain access to the compressor, the left hand panel must be removed from the drawer, to remove this panel the 4 off M5 X 8 ST/ST screws on the side of the drawer and 2 off M5 X 8 bolts from the rear of the drawer must be removed as shown in *figure 11*, then slide the panel down and out.

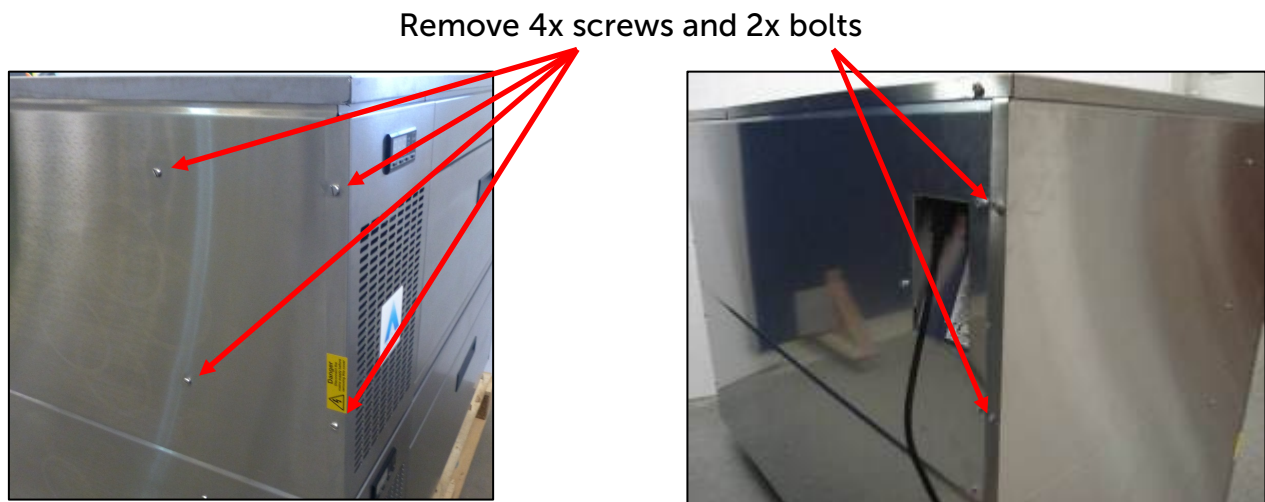


Figure 11: LH side fridge engine access panel removal

13 Rear Panel Removal

The rear panel of the unit may require removal to gain access to the drain pipe or assist in diffuser and heated seal replacements. To remove the back panel, remove all 13 off M5x10 ST/ST bolts as shown in *figure 12* below.



Figure 12: Rear panel removal

14 Drawer Front Removal

To remove the drawer front you will need to remove the 4 off M5 Br.Zn.Pd. Nyloc nuts and 4 off M5 X 10 St/Steel bolts as shown in *figure 13* below.

NOTE: WHEN REPLACING DRAWER FRONT LOCTITE SHOULD BE USED ON THE SCREWS



Figure 13: Removing the four Nyloc Nuts and four M5x10 ST/ST

Once these fixings are removed the drawer front will now slide off as shown below in *Figure14*.



Figure 14: Removing the drawer front

15 Drawer Switch Replacement

To gain access and/or replace the drawer switch, remove either the insulated container and worktop (Chapter 9 and 10) or the Insulated container and side panel (Chapters 9 and 12).

Remove the Spade Connectors from the back of the switch and push the switch through to the drawer cavity as shown in *figure 15* and *16*.



Figure 15: Spade connectors connected to the drawer switch

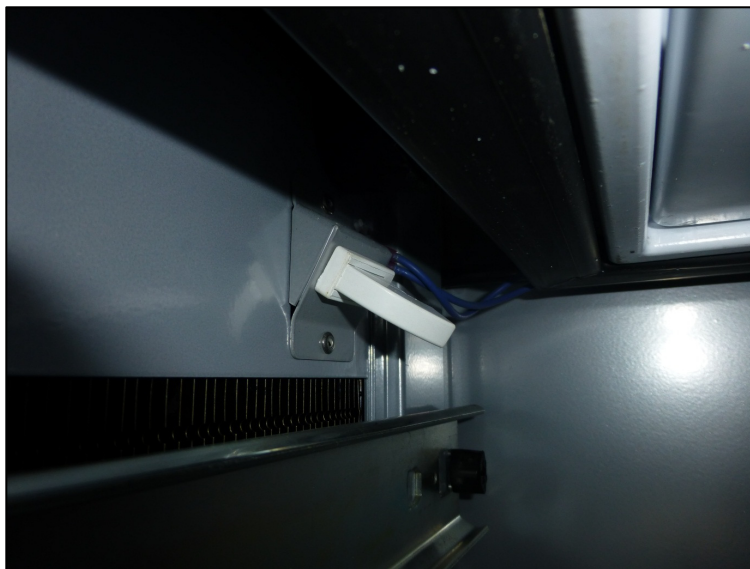


Figure 16: Drawer switch mounted on the Inner Wall Side Panel.

16 Removing the Diffuser

To remove the diffuser the Insulated container will first need removing to allow access (Chapter 9). To remove the diffuser from the lid the 8 off plastic Pozi Drive screws will need removing as in *figure 17*. This will allow the diffuser to be lowered for access.

NOTE: THE DIFFUSER WILL BE CONNECTED TO THE DRAWER BY THE EVAPORATOR FAN WIRES

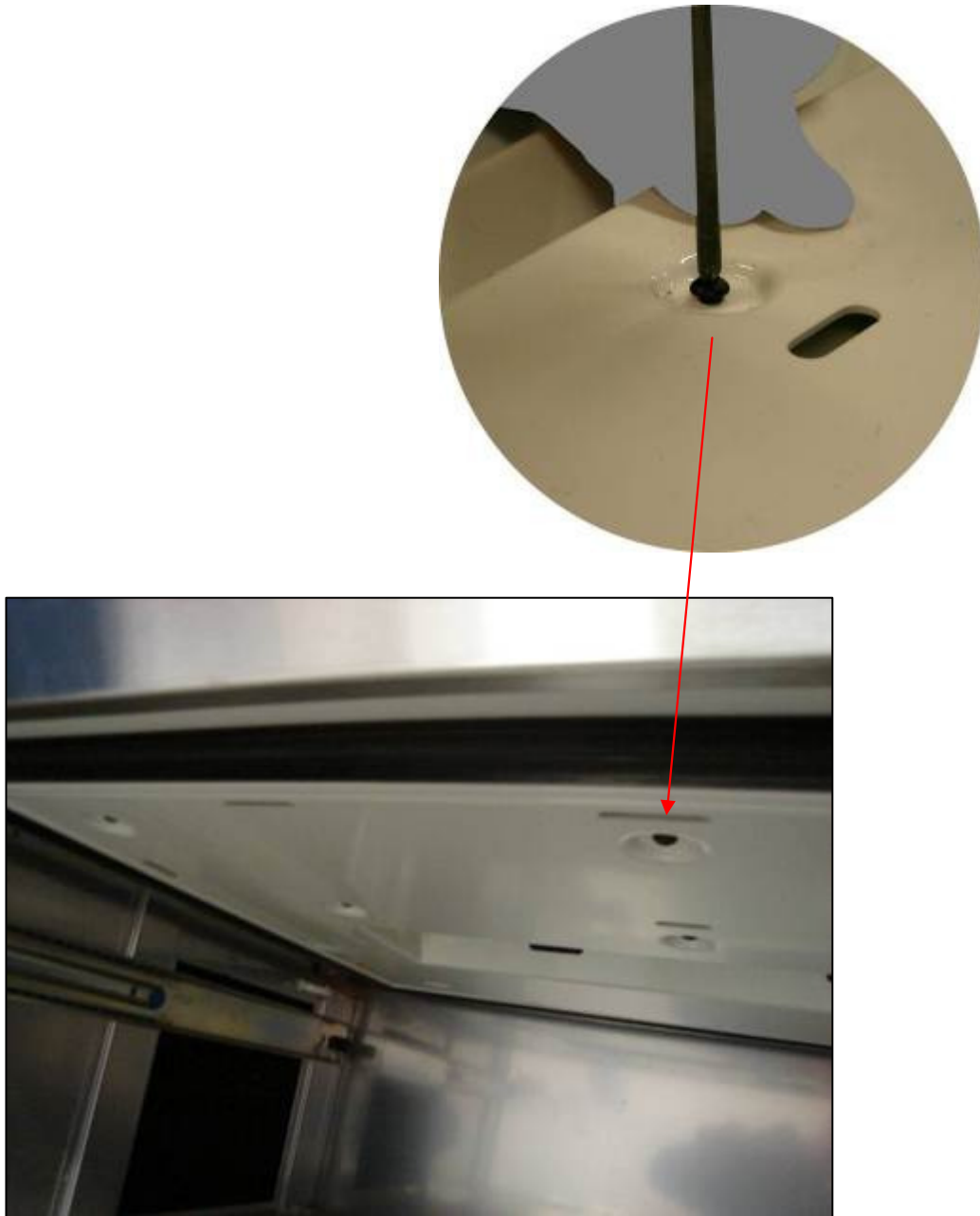


Figure 17: Lid Diffuser

17 Evaporator Fan Replacement

Once the diffuser is removed, cut the wires at the **FAN** end and use these to pull through the new fan wires. Now remove the four self-tapping screws that hold the fans in place as shown in *figure 18a*.

The fan wires need to be disconnected from the controller within the controller enclosure, pull the new wires through the hole in the lid, fit bullet crimps to the new fan wires and connect to the controller, mount the fans back on the diffuser as shown below in *figure 18b*. Replace all cable ties.



Figure 18a: Evaporator fans

4 x Self Tapping screws and cable tie

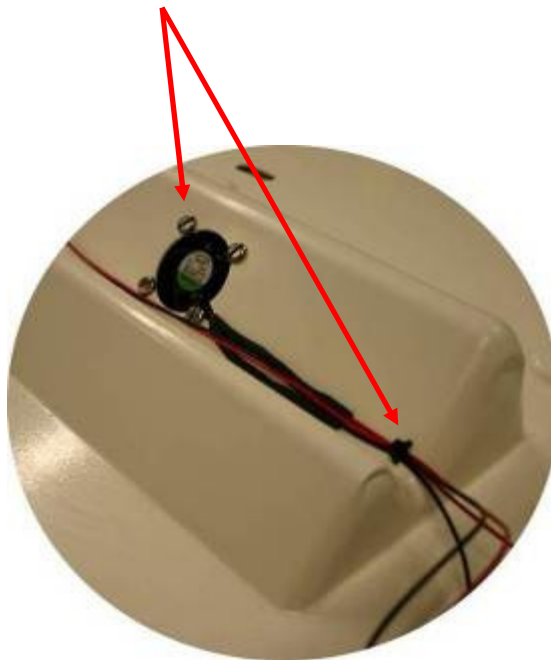


Figure 18b

18 Drain Tray and Defrost Heater Removal and Replacement

To remove the drain tray the insulated container, rear panel and diffuser will need to be removed. (Refer to chapters 9, 13 & 16) Once this has been done remove the drain pipe and putty from the back of the lid as shown in *figure 19* below.

Now remove the wires for the defrost heater from the controller. (Refer to Chapters 24 and 25)

NOTE: ATTACH A SPARE PIECE OF DRAW WIRE TO THE OLD HEATER WIRES BEFORE PULLING WIRES OUT TO AID PULLING THROUGH NEW HEATER WIRES.

Remove the 4 off M5 X 10 bolts and associated sealing washers fixing the drain tray to the evaporator, drop down the drain tray complete with defrost heater and remove. (*Figure 20*)



Figure 19: Drain pipe and putty

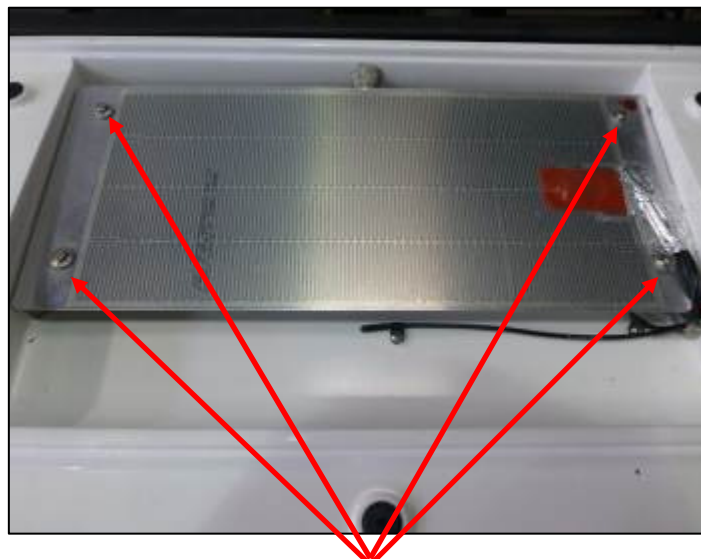


Figure 20: Remove four bolts and sealing washers to release drain tray

NOTE: When replacing the drain tray take care not to bend the tray or the water may not drain correctly, ensure all four sealing washers are on the four fixing bolts. Replace drain tray and putty around drain pipe penetration both inside and outside of lid.

19 Evaporator Temperature Probes Replacement

To replace a faulty temperature probe the insulated container, drawer front, diffuser and drain tray will need to be removed. (Refer to chapters 9, 14, 16 & 18) to gain access to the evaporator coil. Remove the P-Clips holding the probe in place and the refrigeration putty from wire penetration in the lid.

Disconnect the faulty probe from the controller and use it as a pull through to Install the new probe back through the electrical wire penetration hole in the lid, then reconnect to controller, replace the P-Clips and refrigeration putty, as shown in *figure 21*.

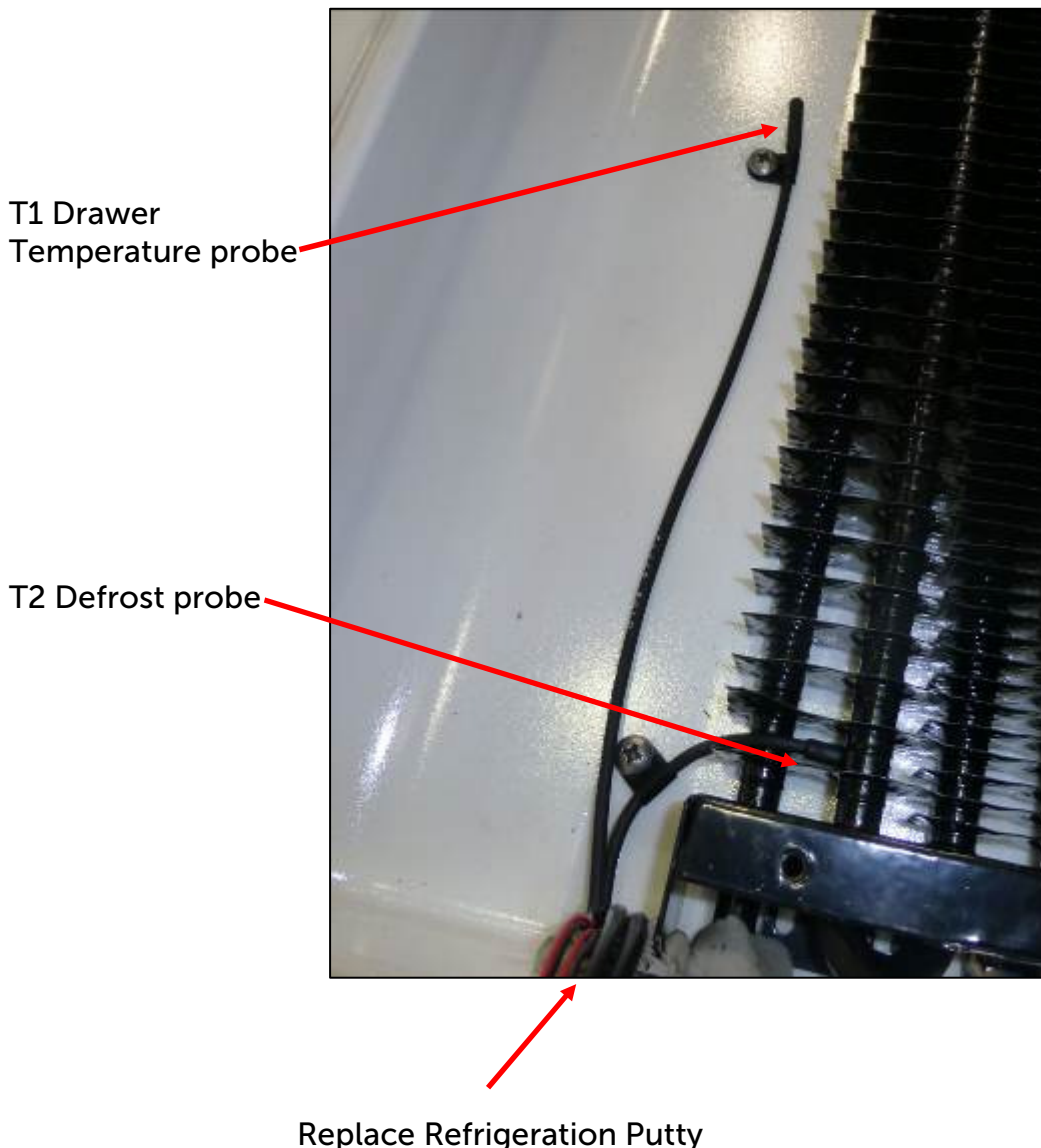


Figure 21: Temperature probes held in place with P-Clips

20 Heated Seal Replacement

To replace the seal first remove the insulated container (Chapter 9). Then pull the heated seals wires through the inner wall from the compressor housing into the drawer cavity and disconnect the two bullet connectors; this disconnects the heating element from the 12v power supply.

Pull the seal out of the retaining channel in the lid and replace with a new seal (Push seal into corners of the retaining channel first for alignment). Reconnect the Bullet connectors and pass back through the Inner Wall into the compressor housing to prevent it snagging on the drawer or runner when closed.

On completion of seal replacement the lid height should be checked refer to Chapter 21.



Figure 22: Heated seal wires and Inner wall penetration

21 Seal Height Adjustment

The seal and lid height is critical to ensure:

- The correct closure and opening of the drawer
- To prevent the insulated container icing closed
- To prevent access of warm ambient air into the container

Lid Height adjustment is done by loosening the 4 lid mounting screws, 2 are located behind removable caps on the RH side panel and 2 within the compressor housing (as shown below with the worktop removed in figures 23a and b). The two rear corners should be adjusted first, apply a small amount of pressure and tighten, then adjust the two front corners by loosening the screws and letting the lid rest under its own weight.

To adjust the lid height on a drawer that is stacked, while the screwdriver is located in the screw head lever the lid up or down as required, repeat the process for all screws until the desired height is achieved.

NOTE: DO NOT OVER COMPRESS THE SEAL

To check that the seal isn't over compressed, open the drawer and ensure there is a 2mm gap between the back edge of the insulated container and the front edge of the seal (container and runners are at a slight angle to the lid).

To prevent a new seal sticking to the rim of the insulated container it is recommended that the seal is lubricated with a silicone based plastic/ rubber lubricant.

Lid mounting screws

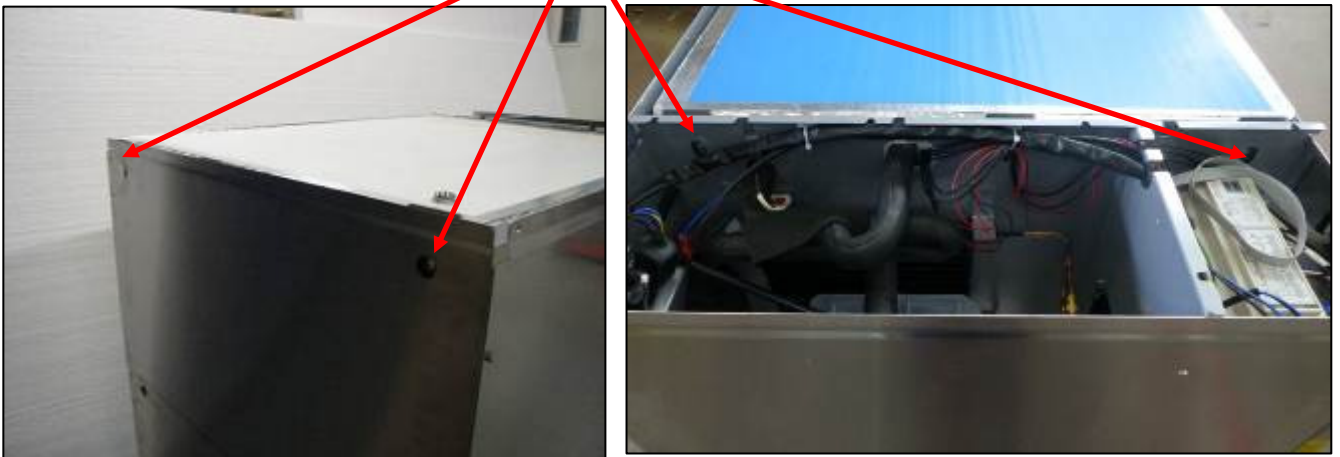


Figure 23a and b: Lid mounting screws when worktop is removed

22 Runner Replacement

To replace a drawer runner the Insulated container and drawer front will need to be removed to gain access (Chapters 9 & 14).

First remove the container support from the failed runner by removing the M5 X 6 ST/ST countersink screw (*figure 24*) and the four off M5x8 (two off on right hand side and two off on left hand side) holding the brace container support rear (*figure 24.1*) the drawer support can now be removed by lifting the front of the support and pulling forward to detach it from the lancements on the runner inner beam. (*Figure: 25*)

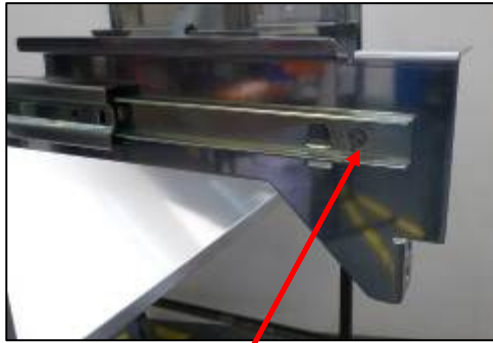


Figure 24: Remove container support retaining screw

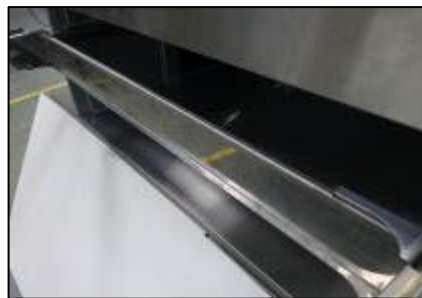


Figure 24.1: Brace Conatiner Support Rear and four off M5x8

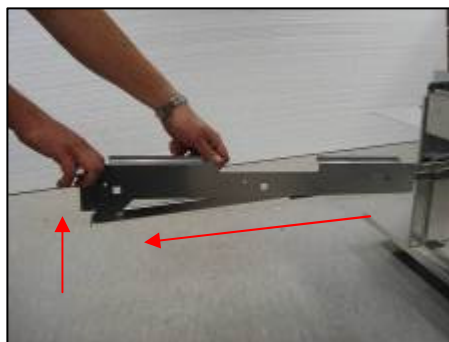


Figure 25: Removal of container support from the drawer runner.

The runner can now be removed from the drawer, extend the runner slightly, and with a firm grip twist the runner toward the middle of the drawer, this will allow the front of the runner to be lifted clearing the front fastenings, pull the runner forward to clear the rear fixing. See figures below.



Figure 26a: Twist runner.



Figure 26b: Lift and pull forward



Figure 26c: Fixings in vertical wall supports and lancements in runner outer beam

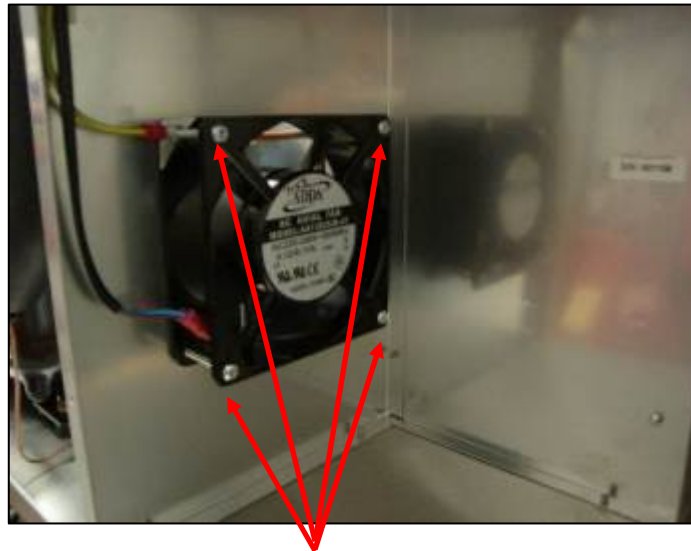
Replacing the runner is the reverse of the removal procedure, engage the rear lancing of the runner in the back vertical wall support and push horizontally to fully engage the rear lancing, engage the middle and front lancements in their associated vertical wall supports and press down on the runner sharply, it should engage in the front vertical wall support with a 'CLICK', you should now not be able to lift the front of the runner vertically.

Fit the container support in the same way by engaging the rear fixing first with a horizontal motion then engage the front 2 lancing's and press down to fully engaging both, ensure the hole in the front of the runner lines up with the hole in the container support, and refit the M5 X 6 countersink screw, once you have done this you will also need to refit the brace container support rear with four off M5x8 bolts.

If required the runner can be lightly greased with food grade grease.

23 Condenser Fan Replacement

To replace the condenser fan, the front grille will need to be removed (Chapter 11). First remove the two loomed wires that run through the 6.4mm grommet to the controller. Then remove the four fixing screws and remove the fan (*figure 27*). Reverse this to replace the fan and connect to the controller. (Refer to chapter 25 Electrical Control System)



4 Off M4 X 45 Br.Zn.Pd. Screws

Figure 27: Condenser Fan mounting

24 Electrical components

Each Adande drawer is fitted with a 5 amp fuse in the 240v mains supply to the controller, this fuse and holder is situated adjacent to the controller (*Figure 28*) and is accessed by removal of the front grille (Chapter 11).



Figure 28: Electrical components

25 Electrical Control System

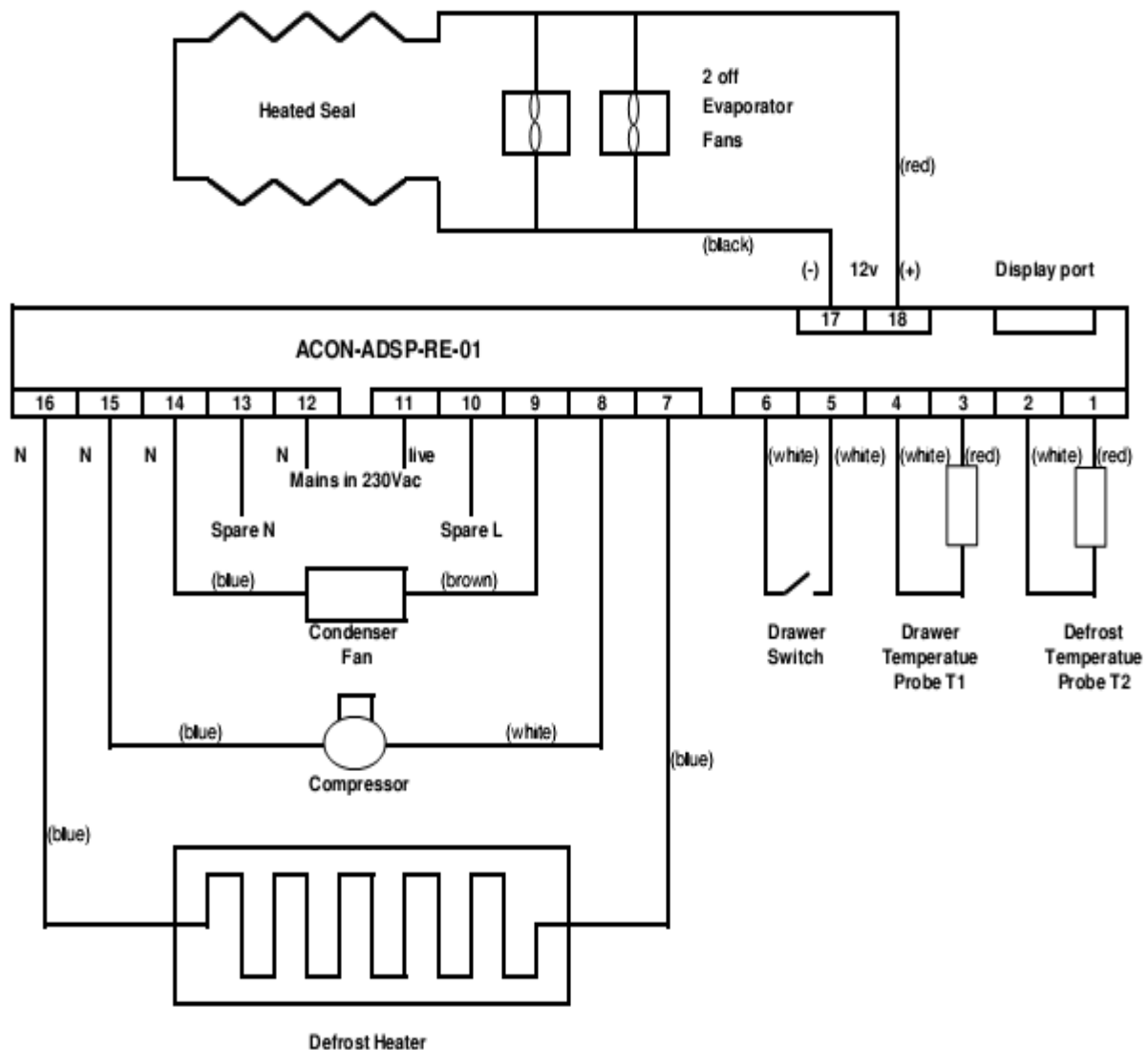
If replacing items connected to the Adande Controller then please refer to the tables below.

NOTE: ALL NEUTRAL CONNECTIONS GO TO THE NEUTRAL PORTS 12 - 16.

Adande Controller	
1	Defrost temperature probe
2	Defrost temperature probe
3	Drawer temperature probe
4	Drawer temperature probe
5	Drawer switch
6	Drawer switch
7	Defrost heater live
8	Compressor live
9	Condenser fan live
10	240v live in
11	Spare live 240v
12	Neutral
13	Neutral
14	Neutral
15	Neutral
16	Neutral
17	Neutral 12v outlet (evaporator fans and seal)
18	Live 12v outlet (evaporator fans and seal)

25.1 Wiring diagram

Wiring Diagram for Adande ACON-ADSP-RE-01 Controller



26 Settings for ACON-ADSP-RE-01 Controller

26.1 R404a controller settings.

The Settings menu is accessed by pressing the 2 outer buttons **X + i** for 5 seconds

<i>Code</i>	<i>Setting</i>	<i>Description</i>	<i>Code</i>	<i>Setting</i>	<i>Description</i>
SCL	1.0'C	Readout scale	FT1	0	Fan stop delay after comp stop
SPL	-22	Min temperature set point	FT2	0	Timed fan stop
SPH	15	Max temperature set point	FT3	0	Timed fan run
SP	3.2	Effective temperature set point	ATM	REL	Alarm thresholds
HYS	1	Thermostat hysteresis	ALR	-7	Low temp alarm differential
CRT	3	Compressor rest time	AHR	7	High temp alarm differential
CT1	5	Compressor run time with sensor T1 failure	ATD	60	Delay before alarm warning
CT2	5	Compressor off time with sensor T1 failure	ADO	3	Drawer alarm delay
CSD	1	Compressor stop delay from door opening	ACC	0	Periodic condenser cleaning
DFR	4	Defrosting frequency/24h	SB	YES	Button (0/1) enabling
DLI	8	Defrost end temperature	DS	YES	Drawer switch enabling
DTO	25	Max defrost duration	LSM	Non	Light control mode
DTY	ELE	Defrost type	OS1	0	Probe 1 offset
DRN	6	Drain down time	T2	YES	Probe 2 enabling
DDY	30	Defrosting display control	OS2	0	Probe 2 offset
FID	No	Fans active during defrost	TLD	5	Delay for min/max temp. logging
FDD	-5	Fan restart temp after defrost	SIM	100	Display slowdown
FTC	NO	Evaporator fan timed out	ADR	1	Address for PC communication

26.2 R600a controller settings

<i>Code</i>	<i>Setting</i>	<i>Description</i>	<i>Code</i>	<i>Setting</i>	<i>Description</i>
SCL	1.0'C	Readout scale	FT1	0	Fan stop delay after comp stop
SPL	-22	Min temperature set point	FT2	0	Timed fan stop
SPH	15	Max temperature set point	FT3	0	Timed fan run
SP	3.2	Effective temperature set point	ATM	REL	Alarm thresholds
HYS	2	Thermostat hysteresis	ALR	-7	Low temp alarm differential
CRT	5	Compressor rest time	AHR	7	High temp alarm differential
CT1	10	Compressor run time with sensor T1 failure	ATD	60	Delay before alarm warning
CT2	10	Compressor off time with sensor T1 failure	ADO	3	Drawer alarm delay
CSD	2	Compressor stop delay from door opening	ACC	0	Periodic condenser cleaning
DFR	4	Defrosting frequency/24h	SB	YES	Button (0/1) enabling
DLI	8	Defrost end temperature	DS	YES	Drawer switch enabling
DTO	25	Max defrost duration	LSM	Non	Light control mode
DTY	ELE	Defrost type	OS1	1	Probe 1 offset
DRN	6	Drain down time	T2	YES	Probe 2 enabling
DDY	30	Defrosting display control	OS2	0	Probe 2 offset
FID	No	Fans active during defrost	TLD	5	Delay for min/max temp. logging
FDD	-5	Fan restart temp after defrost	SIM	100	Display slowdown
FTC	NO	Evaporator fan timed out	ADR	1	Address for PC communication

27 Refrigeration maintenance

A standard hermetically sealed R404a vapour compression refrigeration circuit is used in the Adande® drawer system and will need minimum maintenance.

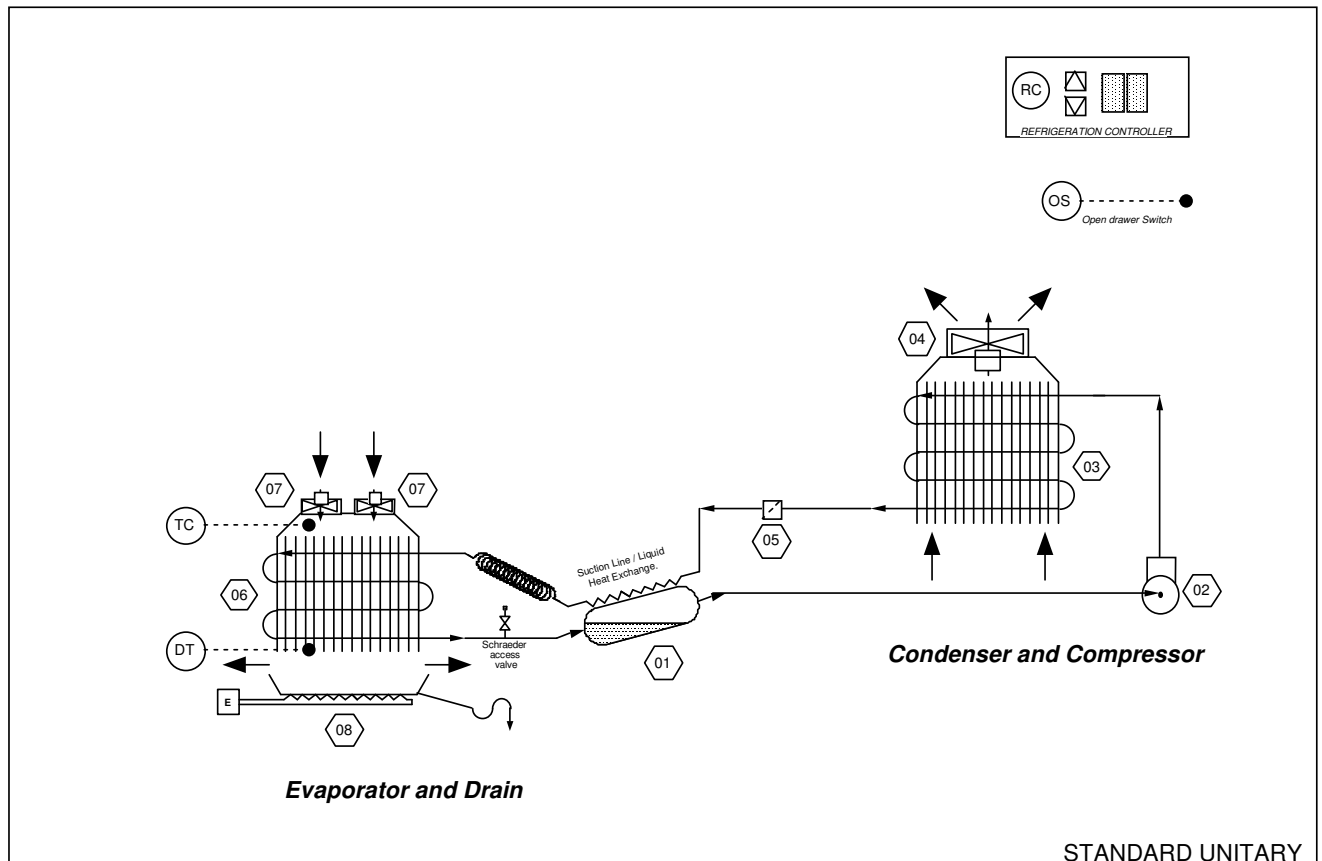


Figure 29: Refrigeration circuit diagram

The unique design for airflow over the condenser means that the majority of any airborne contaminants are deposited on the easily cleaned surfaces of the drawer cabinet and the insulated container.

In the unlikely event of the condenser becoming blocked, it can be easily accessed by removing the insulated container and cleaned in the normal way.

28 Drawer configurations

The Adande® Side Engine Drawer Fridge (VCS) can be configured in several ways. Below are some examples of single, two and three drawer options.

VCS1HCHS



- Single drawer
- High castor base
- Heat shielding worktop

This arrangement is intended to support a grill or oven.

VCS2CT



- Two drawer
- Standard castor base
- Top cover

The top cover is a non load bearing cover.

This arrangement is intended for under counter installations



VCS3CW

Three drawer setup
Castor base
Worktop



VCS2CM

Two drawer unit
Castor base
Microwave station
(Optional can opener)



Blast Chiller drawer



Lockable drawer front

29 Fault Finding

29.1 Drawers not operating correctly

Possible Cause	Recommended Action
Runners require lubrication	Lubricate runners, see Chapter 22
Runners are mechanically damaged	Replace runners, see Chapter 22
Seal is being over compressed	Readjust lid height, see Chapter 21
Ice build up causing diffuser to hit insulated container	Check defrost heater operation and drain for blockages see Chapter 18 Check seal height see Chapter 21

29.2 Seal and/or insulated container rim have ice and condensation

Possible Cause	Recommended Action
Seal is contaminated	Clean the seal
Seal damaged	Replace seal, see Chapter 20
Seal heater is not working	a) Check 12 v power supply b) Check seal heater continuity, Replace seal if faulty, see Chapter 20
Seal compression is inadequate	Readjust lid height, see Chapter 21
Product/packaging trapped between insulated container rim and lid distorting seal	Ensure stored product is below Max Fill line in insulated container.

29.3 Drawer is not maintaining set temperature

Possible Cause	Recommended Action
Failure of evaporator fans	a) Check drawer switch operation b) Check 12v power supply c) Check evaporator fans. Replace evaporator fans if necessary, see Chapters 15, 16, and 17
Seal failure	Check condition of heated seal
Excessive icing of evaporator coil	a) Check defrost operation b) Check defrost heater operation c) Manually defrost d) Check/clean drain from evaporator e) Check seal condition f) Check lid height
Drawer temperature probe faulty	Replace temperature probe
Defrost termination probe faulty	Replace temperature probe
Blocked capillary line	Replace capillary tube.
Low refrigerant	Search for leak in system, repair leak and recharge with refrigerant
Failure of condenser fan	Check the condenser fan is operational, see Chapter 23
Condenser coil is blocked	Clean condenser coil
Failure of compressor	Replace compressor if faulty.

29.4 The Drawer does not power up

Possible Cause	Recommended Action
Fuse has failed in mains plug	Check fuse, if it has failed investigate for possible cause before fitting new 13A fuse.
Fuse has failed within electrical system	Check internal 5 amp fuse – see Chapter 24
No mains power at mains terminals	If mains fuse OK then check wiring of the plug. Ensure power is switched off at socket.
Plug into drawer not fully inserted	Check all plugs/ sockets, ensure 'P' clips correctly fitted.

29.5 Evaporator fans run when drawer is open

Possible Cause	Recommended Action
Controller has failed.	Replace Controller

29.6 Evaporator fans do not run when drawer is closed

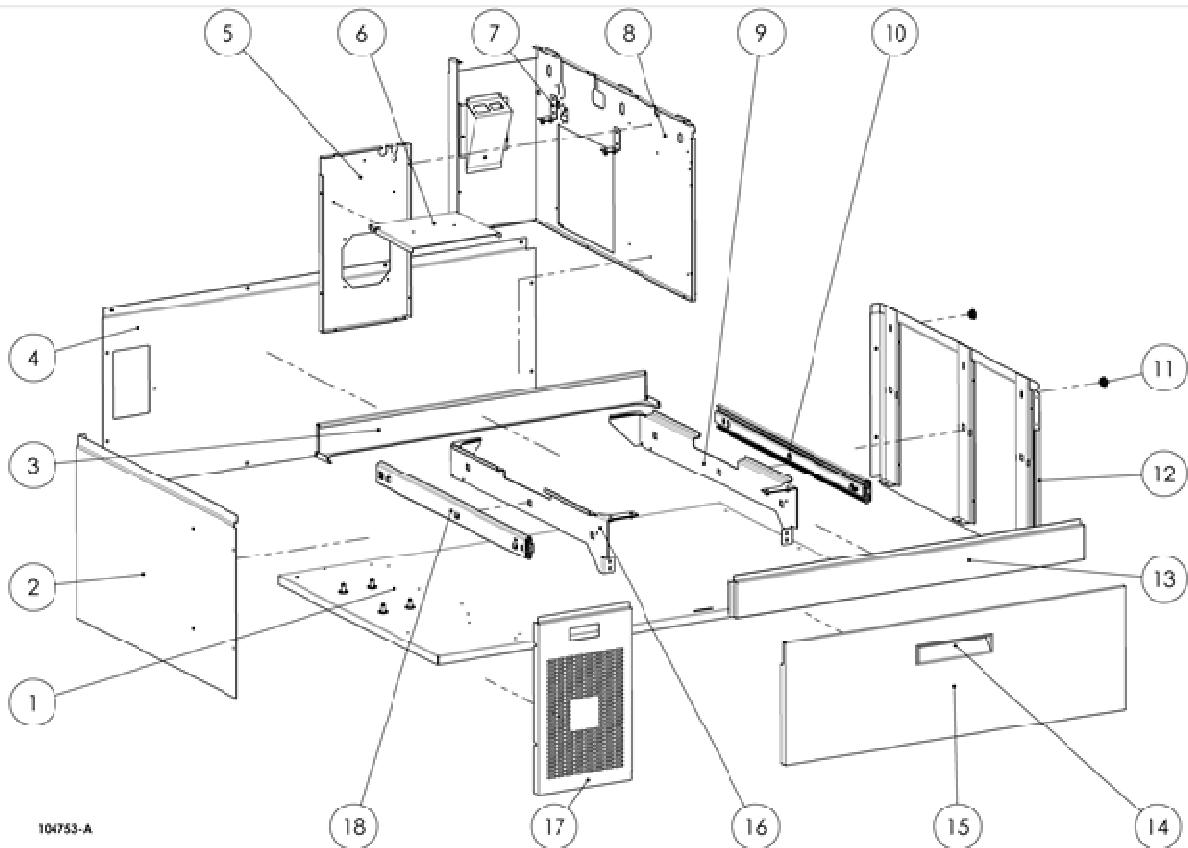
Possible Cause	Recommended Action
Drawer switch has failed	Replace switch
12 v power supply in control module failed	Check 12v power supply in controller module Check wiring to fans for damage

29.7 Display not functioning

Possible Cause	Recommended Action
Ribbon cable connections loose	Check ribbon cable connections at display and controller
Fuse has failed within unit	Check 6.3amp fuse in controller
Display has failed	Replace display

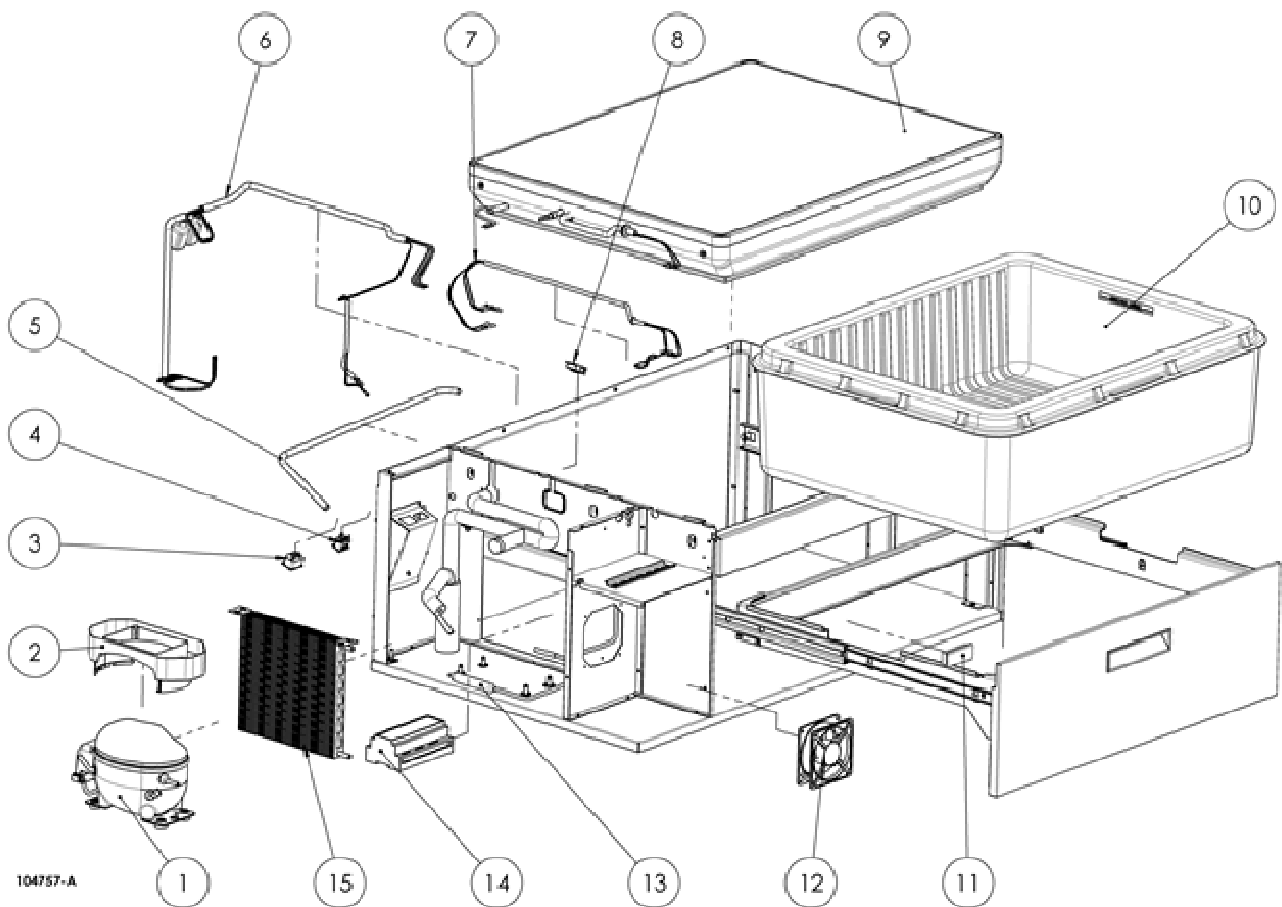
30 Exploded diagrams

30.1 Housing spare parts



Item	Part No.	Description	Item	Part No.	Description
1	103706	PANEL HOUSING BASE	10	104741	DRAWER SLIDE RH
2	103718	PANEL HOUSING LH	11	103292	PLUG BUTTON SNAP-IN
3	104715	BRACE CONTAINER SUPPORT REAR	12	103713	PANEL HOUSING RH ASSY
4	103717	PANEL HOUSING REAR	13	103716	CHANNEL UPPER FRONT
5	103711	PANEL FAN MOUNTING	14	103694	RECESSED PLASTIC DRAWER PULL
6	103712	PANEL LOWER CONTROLS	15	103734	DRAWER FRONT FIXED ASSY
7	103719	BRACKET CONDENSER SUPPORT	16	103722	SUPPORT LH ADANDE CONTAINER
8	103707	COMMON WALL ASSEMBLY	17	103720	PANEL CONTROLLER & LOUVRE
9	103721	SUPPORT RH ADANDE CONTAINER	18	104740	DRAWER SLIDE LH

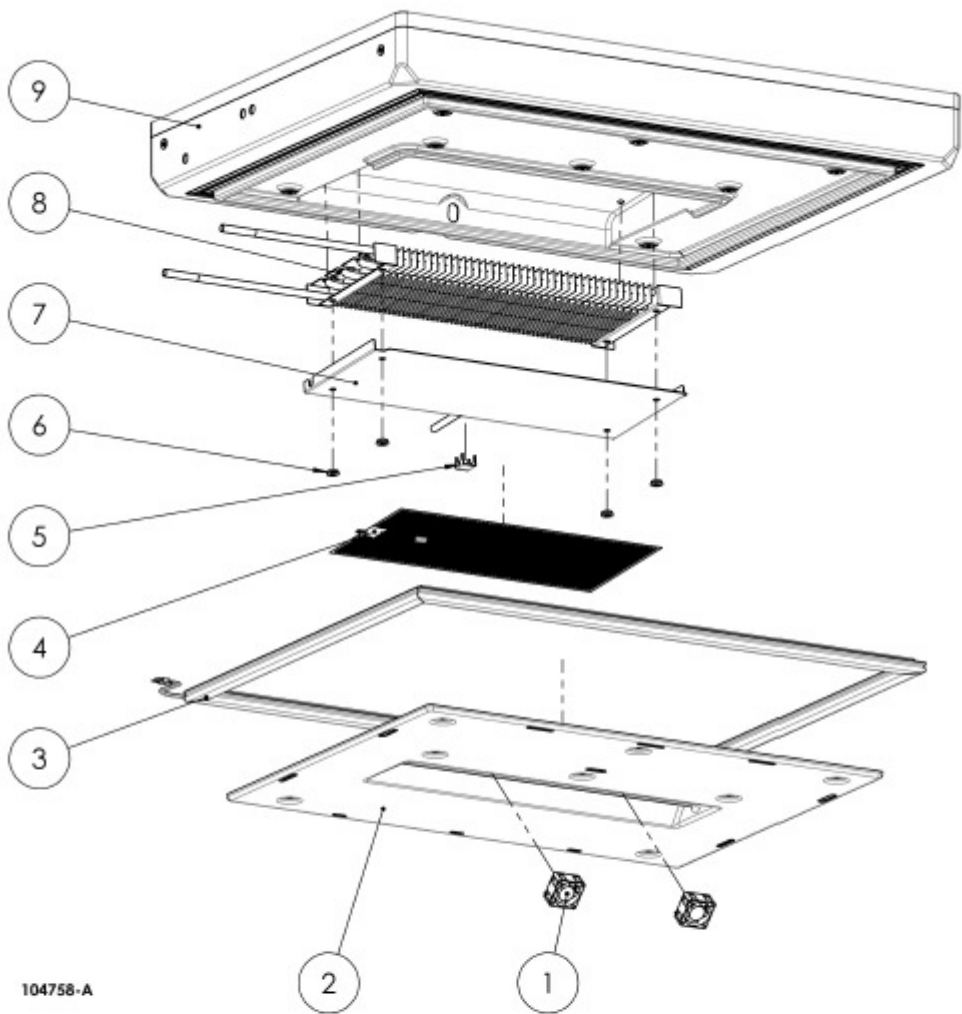
30.2 R404a & R600a Fridge, Electrical System and Drawer Parts



Item	Part No.	Description	Item	Part No.	Description
1	103969	COMPRESSOR EMT2117GK	8	102923	DRAWER SWITCH
1	103795	COMPRESSOR NBU1118Y (eVCS)	9	103754	INSULATED LID BUILT ASSEMBLY
2	103970	EVAPORATOR TRAY (VCS)	10	103727	INSULATED CONTAINER
2	104048	EVAPORATOR TRAY (eVCS)	11	103755	CONTROLLER DISPLAY
3	102922	POWER OUTLET IEC	12	103008	AXIAL FAN
4	102921	POWER INLET IEC	13	102930	FILTER DRIER
5	102976	DRAIN PIPE	14	103744	REFRIGERATION CONTROLLER
6	102962	HARNESS MAIN POWER INTERNAL	15	103185	CONDENSER
7	103030	HARNESS SWITCH & SEAL HEATER			

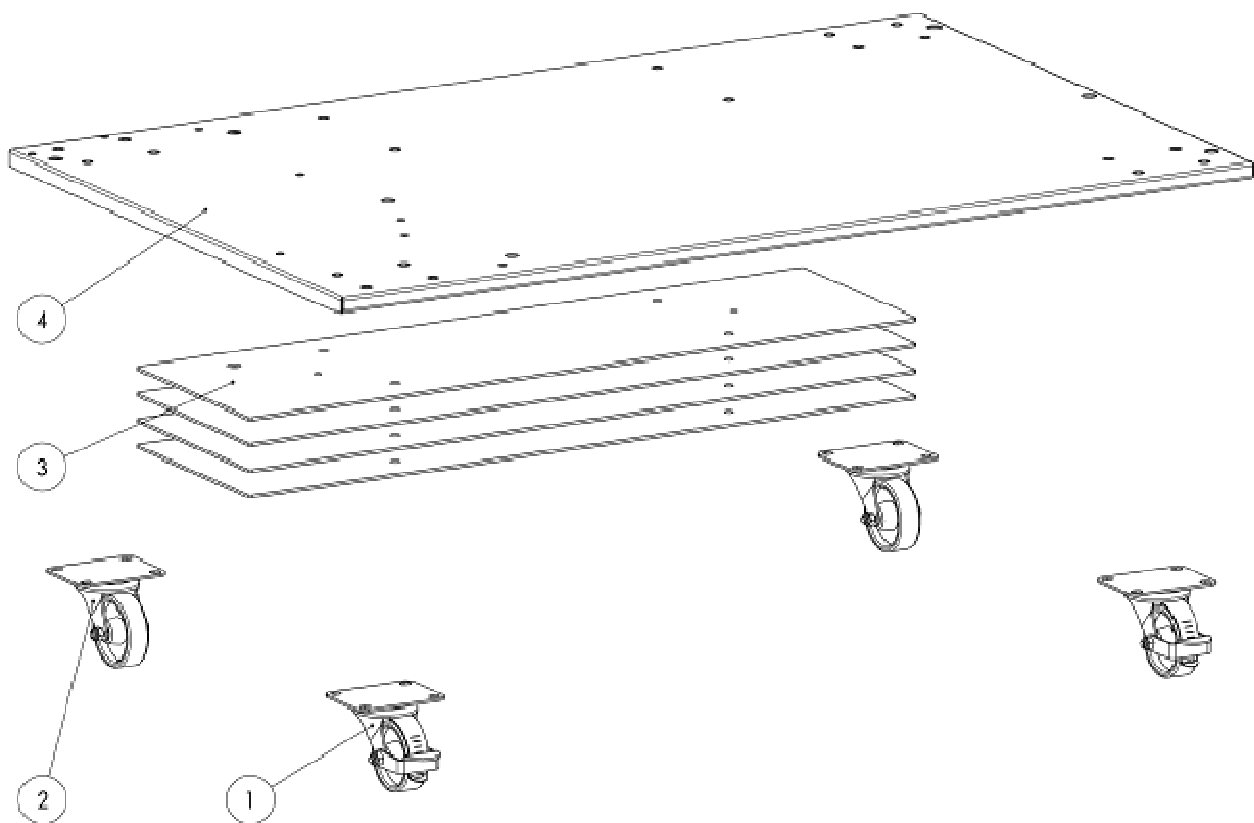
30.3 Insulated Lid (part No. 103754 – Complete Assembly)

INSULATED LID ASSEMBLY (Part No. 103754 – complete assembly)



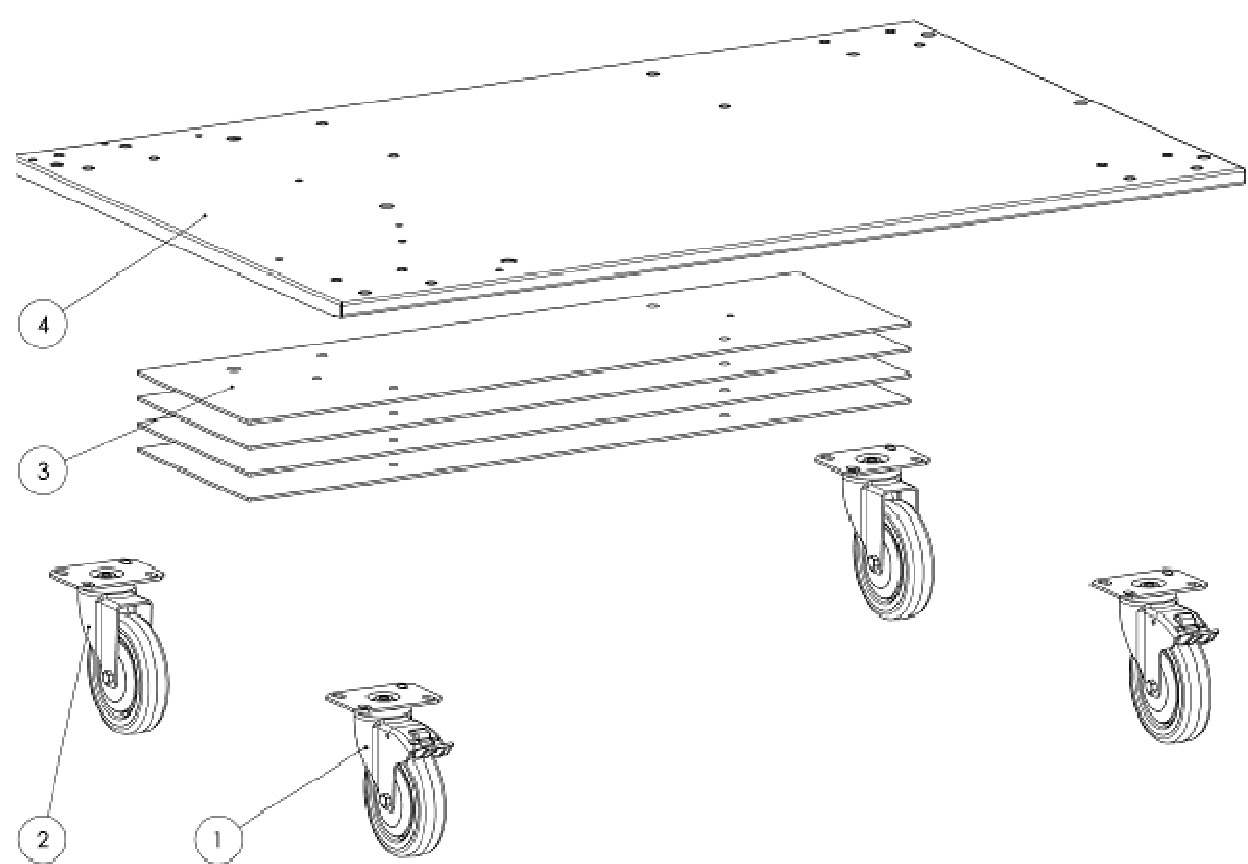
Item	Part No.	Description	Item	Part No.	Description
1	102508	EVAPORATOR FAN	6	103491	WASHER ST/ST BONDED
2	103729	LID DIFFUSER	7	103726	PLATE DEFROST COLLECTION
3	103746	CONTAINER SEAL HEATED MAGNETIC	8	104287	EVAPORATOR COIL PAINTED
4	103009	DEFROST HEATER ELECTRIC	9	103735	INSULATED LID
5	103760	BRACKET CLIP-ON C/TRAY SPACER			

30.4 C - BASE - Standard Castors (Part No. 102992 – complete assembly)



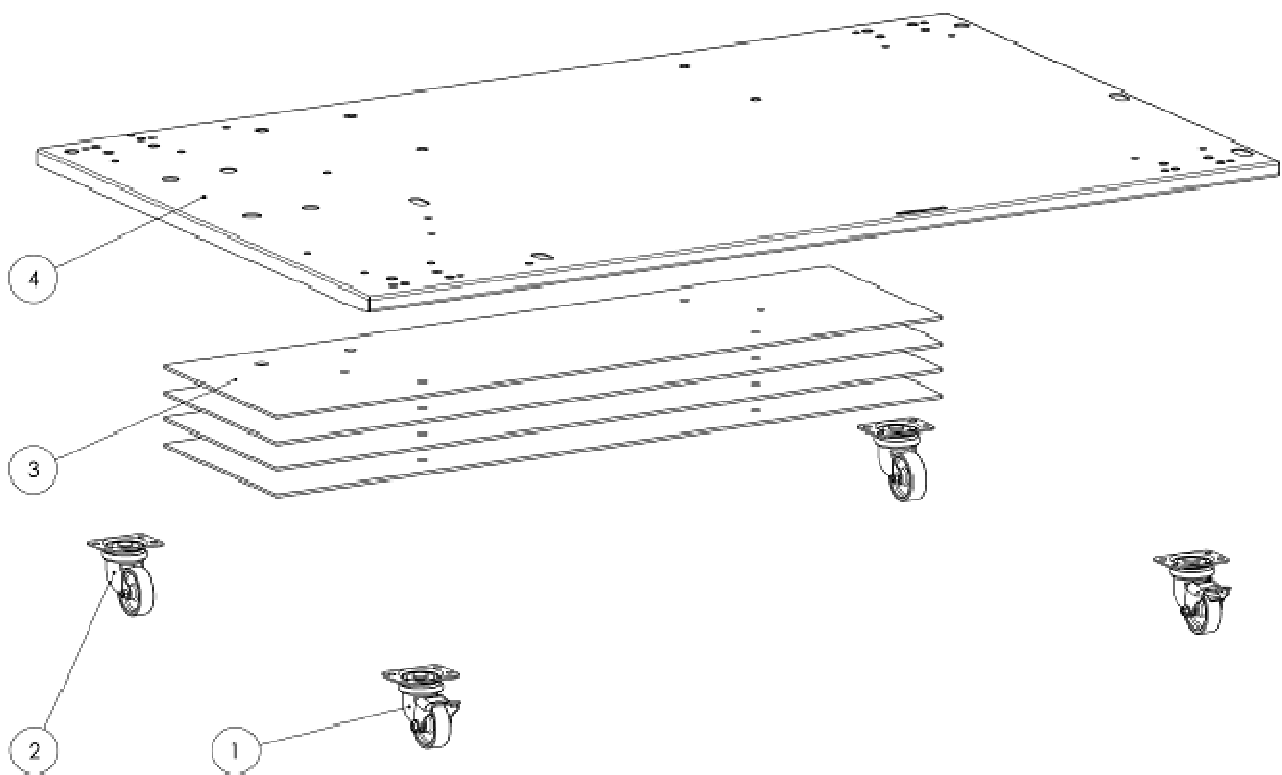
Item	Part No.	Description
1	102517	SWIVEL CASTOR 75mm WITH BRAKE
2	102516	SWIVEL CASTOR 75mm
3	102905	PANEL COUNTERBALANCE
4	102889	PANEL BASE CASTOR TROLLEY

30.5 HC – BASE - High Castors (Part No. 103506– complete assembly)



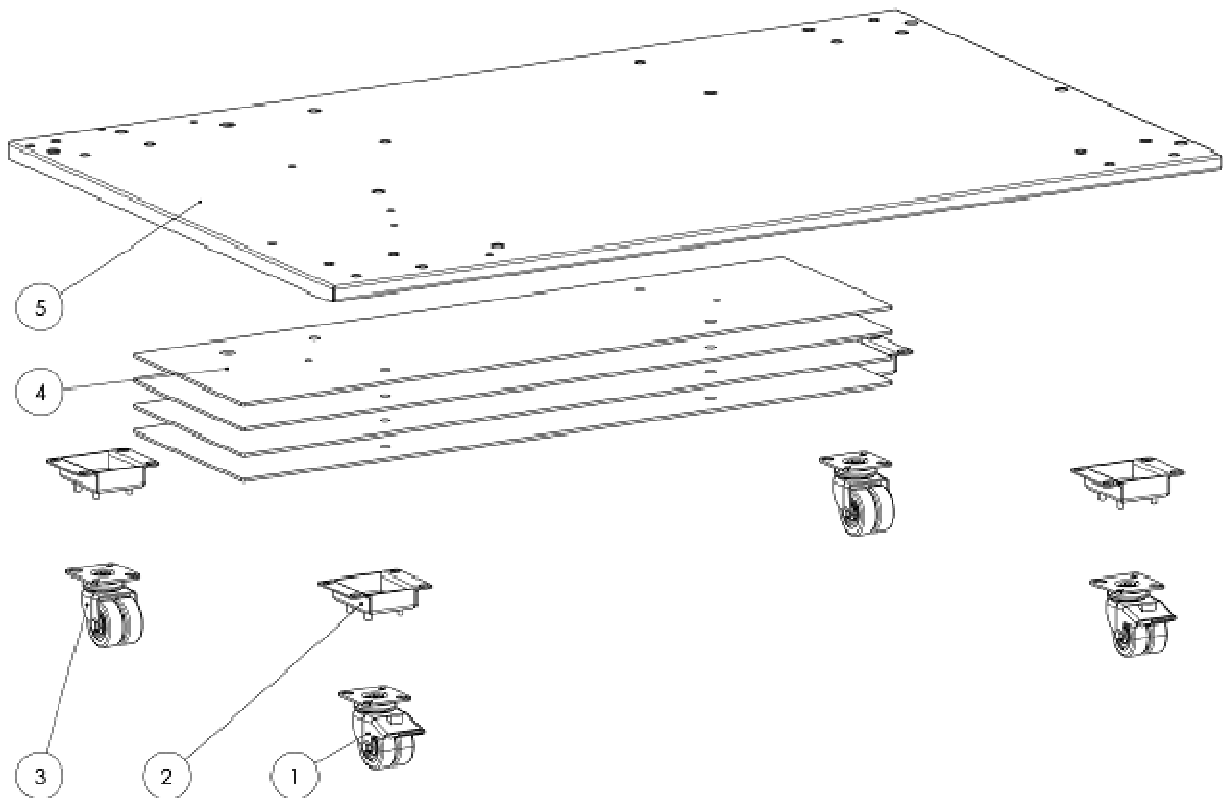
Item	Part No.	Description
1	103502	SWIVEL CASTOR 125mm WITH BRAKE
2	103501	SWIVEL CASTOR 125mm
3	102905	PANEL COUNTERBALANCE
4	102889	PANEL BASE CASTOR TROLLEY

30.6 SC – BASE - Small Castors (Part No. 103535– complete assembly)



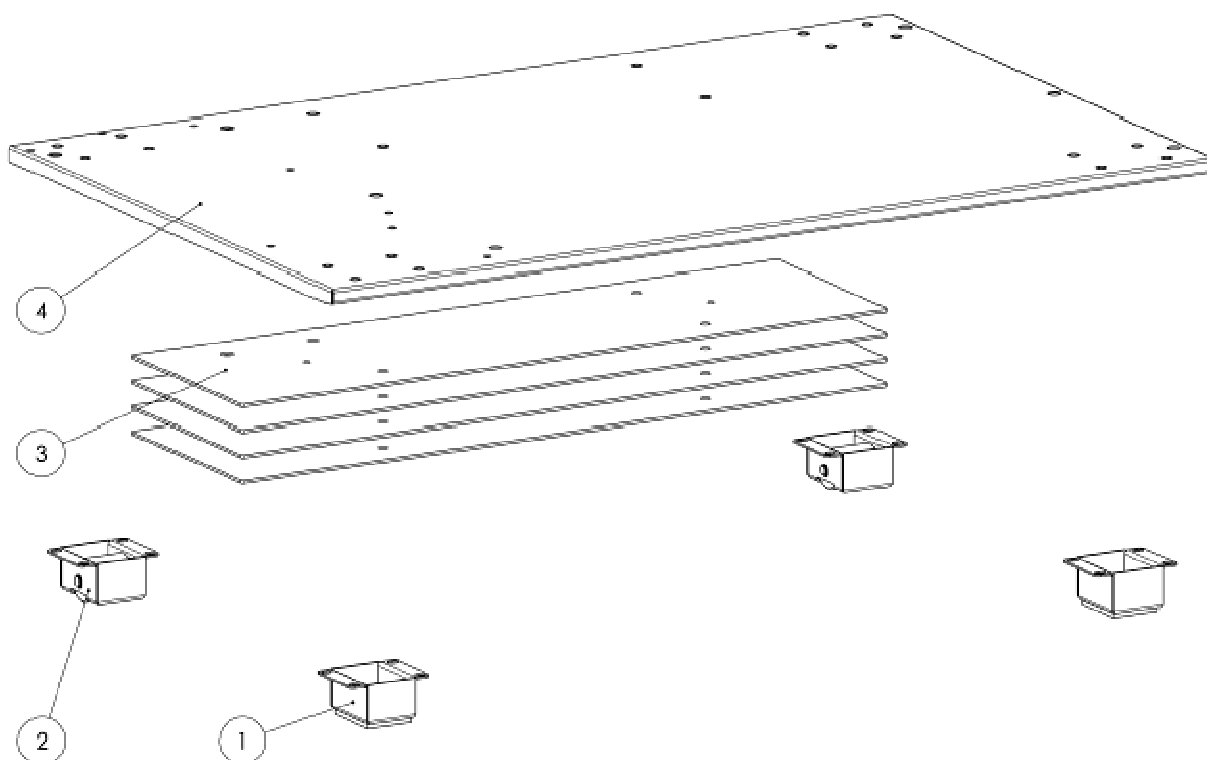
Item	Part No.	Description
1	103524	SWIVEL CASTOR BRAKED 50mm
2	103523	SWIVEL CASTOR 50mm
3	102905	PANEL COUNTERBALANCE
4	103522	PANEL BASE 50mm CASTOR TROLLEY

30.7 DC- BASE - Double Castor with Adapter (Part No. 103465 – complete assembly)



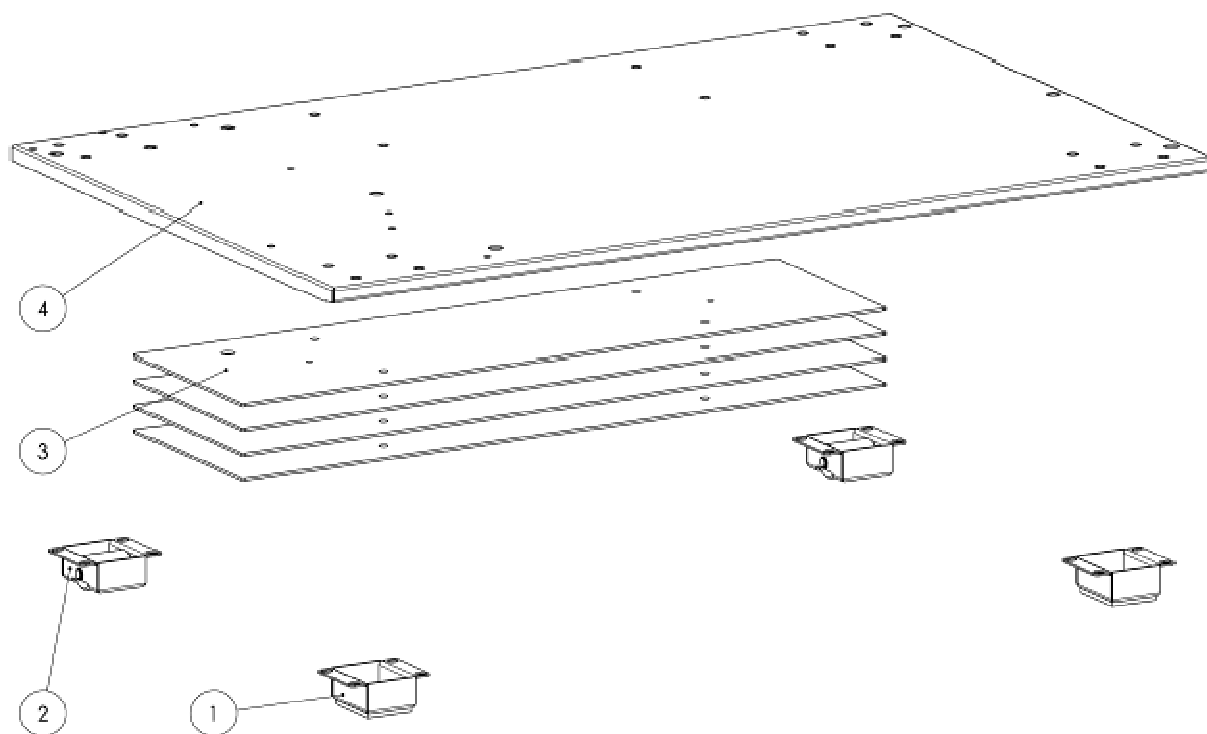
Item	Part No.	Description
1	103376	SWIVEL CASTOR DOUBLE WHEEL BRAKED
2	103372	BRACKET ADAPTER CASTOR FITTING
3	103375	SWIVEL CASTOR DOUBLE WHEEL
4	102905	PANEL COUNTERBALANCE
5	102889	PANEL BASE CASTOR TROLLEY

30.8 R – BASE - Rollers rear, Feet front (Part No. 102993 – complete assembly)



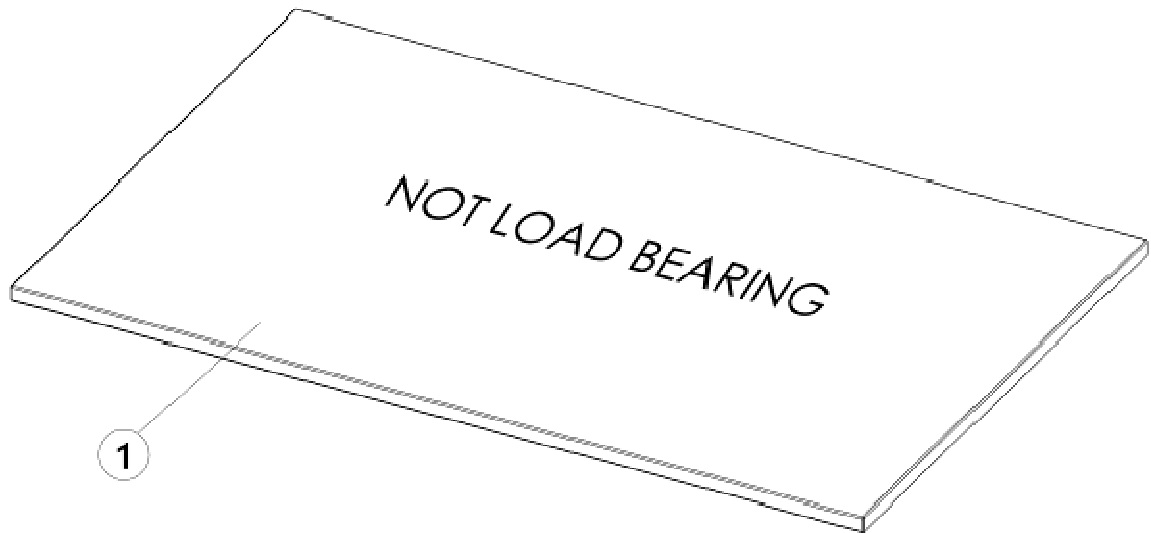
Item	Part No.	Description
1	103007	FOOT SUPPORT 50MM ASSEMBLY
2	102955	ROLLER ASSEMBLY
3	102905	PANEL COUNTERBALANCE
4	102889	PANEL BASE CASTOR TROLLEY

30.9 SR – BASE - Small Rollers rear, Small Feet front (Part No. 103393 – complete assembly)



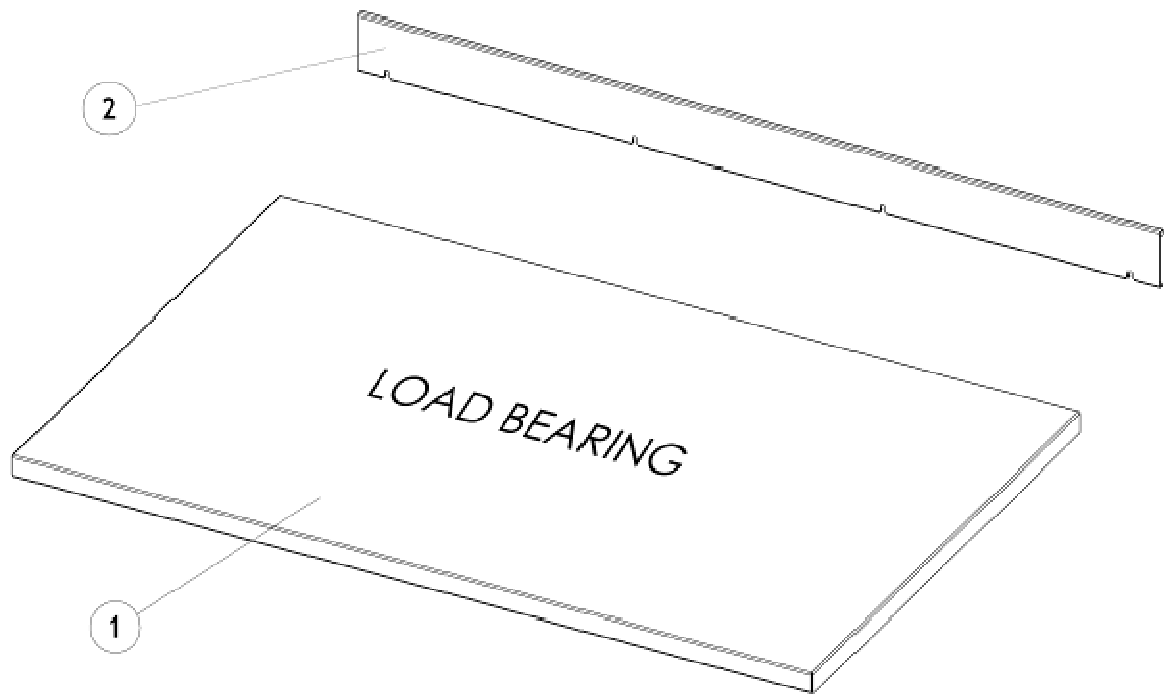
Item	Part No.	Description
1	103229	FOOT SUPPORT 40MM ASSEMBLY
2	103232	ROLLER SMALL ASSEMBLY
3	102905	PANEL COUNTERBALANCE
4	102889	PANEL BASE CASTOR TROLLEY

30.10 T - Top cover



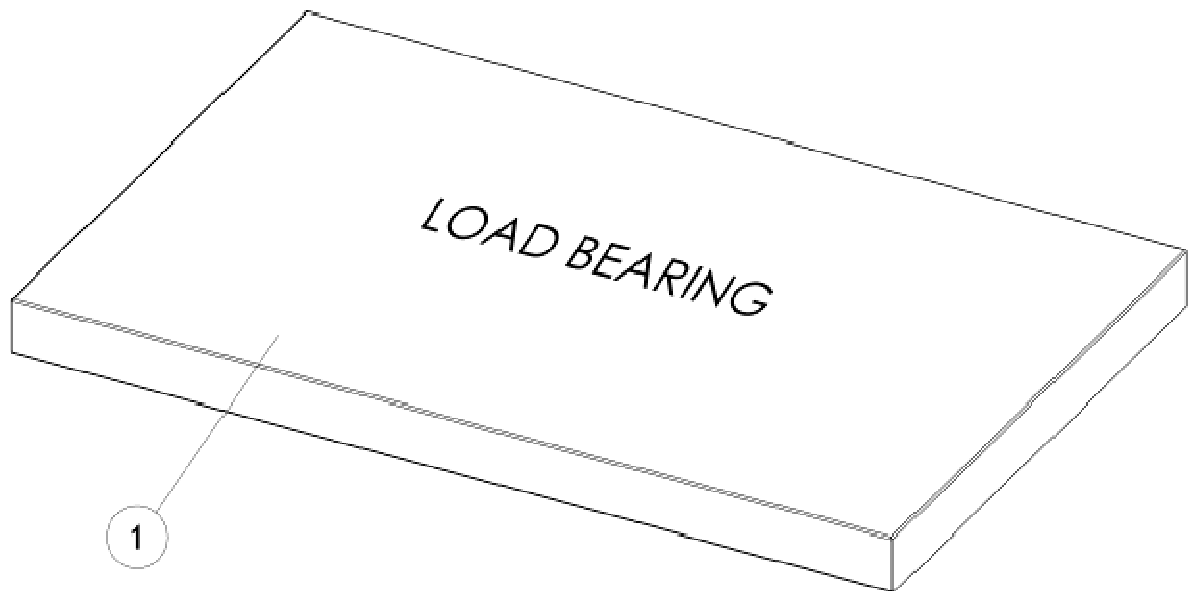
Item	Part No.	Description
1	103034	TOP COVER

30.11 W - Worktop (shown with optional 50mm upstand)



Item	Part No.	Description
1	102949	WORKTOP
2	103056	UPSTAND

30.12 HS - Heat shield top



Item	Part No.	Description
1	103570	HEAT SHIELD TOP