TOTAL RECALL

Total Recall for the MultiLevel Capture System

Operation Guide

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Introduction

Thank you for using Solid State Organ Systems products in your console. We hope that with Total Recall installed, you will experience greater flexibility from your instrument and a practical reliability that has become a trademark of all Solid State Organ Systems products around the World.

This operation guide explains how to use Total Recall as part of the MultiLevel Capture System installed in your instrument. There is a separate guide for installation and fault finding which your organ builder will have. But you will find some troubleshooting tips in this guide to help you know whether your Total Recall is working correctly and whether you need to contact your organ builder or Solid State Organ Systems for further help.

We are always happy to supply extra copies, should you require them. You can also download this guide along with all our documentation from our website at www.ssosytems.com.

Because we are committed to continual and ongoing improvement we really value our customers letting us know how we are doing. If you have any feedback about Total Recall, or this Operation Guide, please do not hesitate to tell us using the contact details on the cover of this guide.

A Two Minute Tour

As its name suggests, Total Recall allows you to save onto a standard floppy disk all of the console settings stored within the MultiLevel Piston Capture System. These settings can then be totally recalled from the floppy disk at your convenience.

Multiple copies of each floppy disk can be made either by repeating the TO DISK function at the console or by duplicating the floppy disk using a PC.

There are two methods of use:

- LIVE ..... which replaces the first 32 memory levels[1] at the console with 32 levels of memory directly accessed and stored on each floppy disk.
- BACKUP ..... which stores the entire memory contents of the MultiLevel Capture System onto a disk. This is not limited to 32 levels as in LIVE method, but instead by the number of memory levels available at the console. From the Total Recall control panel TO DISK stores the information and FROM DISK recalls it.

We recommend that users who are new to Total Recall begin by using the LIVE method.

With your Total Recall we have provided a separate 'Console Card' for quick reference. A copy of this is also included at the back of this guide for you to copy and distribute as many times as you wish.

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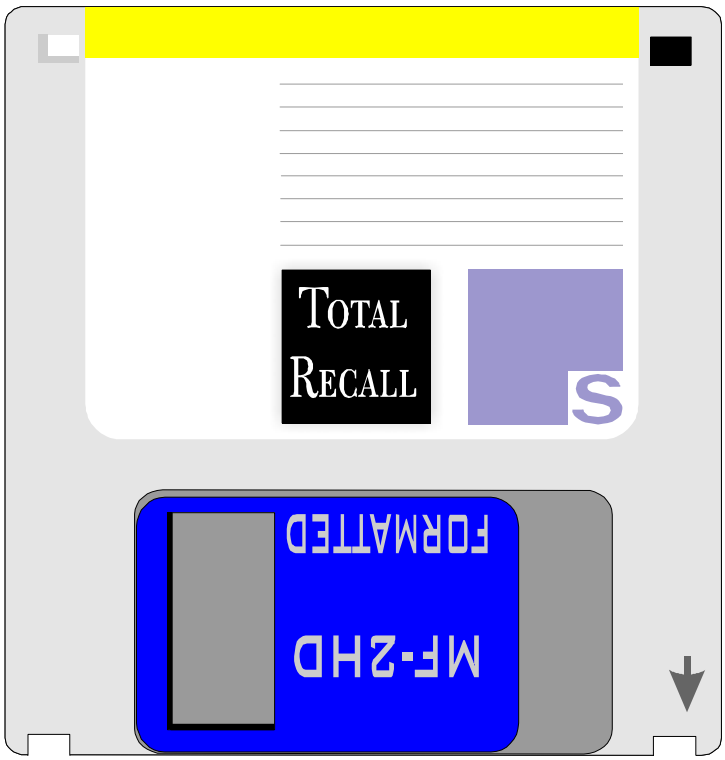
[1] *On very large instruments this may be limited to 8 Memory Levels, SSOS or your organ builder can advise.*

A Word About Floppy Disks

The Total Recall System is supplied with a box of ten floppy disks, additional disks are available from SSOS or you can use any disk that meets the following specifications.



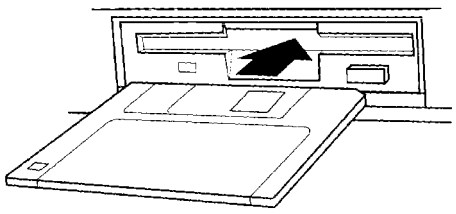
1. 3½ " High Density Double Sided disk. Usually labelled as 2HD on the box.

2. The disk must be brand new and formatted or reformatted in your PC as High Density 1.44M. Just deleting the files is not enough.

3. Make sure the write protect window is set to write. This is the little sliding black square that blocks the hole, shown as a black rectangle on the drawing to the left. Writing to the disk is enabled when the hole is blocked. If both holes are open then the disk will not work.

Using the Floppy Disk

Insert one of the floppy disks that came with your Total Recall System into the disk drive. Be sure to insert the disk with the label side facing upward and the arrow pointing to the disk drive.



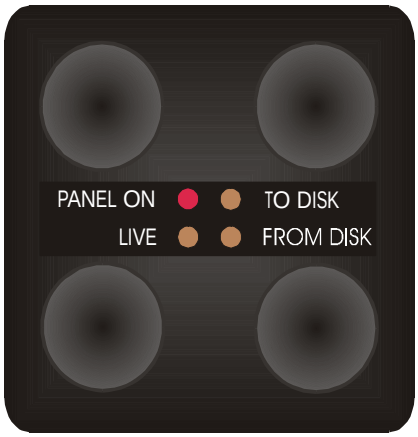
Push the disk gently forward, until you hear it settle into the drive with a click.

To eject the disk, push the eject button on the disk drive that automatically protrudes when a disk is present in the drive.

An Overview at the Console

The Control Panel

There are only four controls required to operate Total Recall and all are contained on one simple panel (shown below). Each button has an accompanying lamp that indicates the state of that function including errors and progress through the task.



The complete Total Recall function is turned on and off using the PANEL ON button (top left). When the PANEL ON lamp is lit the other three buttons on the rest of the panel are operational.

First insert a disk, then push the PANEL ON button once to turn on the Total Recall panel and then again to turn it off.

On the right hand side of the panel are two buttons that are used for the BACKUP method. With the panel on, these buttons will make and restore copies of the entire contents of the MultiLevel Capture System memory levels.

- **TO DISK** will copy all the contents of the memory levels to the inserted floppy disk.
- **FROM DISK** will copy the contents of the floppy disk into the memory levels of the MultiLevel Capture System..

On the bottom left of the panel is a button marked LIVE. The LIVE method is used independently of the TO DISK and FROM DISK buttons.

With a floppy disk inserted, pressing the LIVE button will temporarily replace the contents of the first 32 memory levels (this may be reduced to 8 levels in large consoles). After pressing, the LIVE lamp will light to show that the memory levels are being read from the disk into a temporary memory area of the Multi|level Capture System.

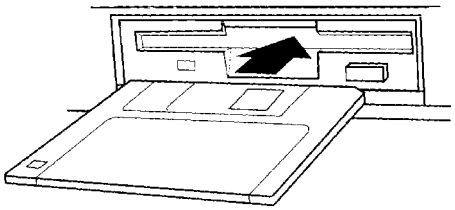
Pressing the LIVE button once again will turn off the LIVE lamp and the MultiLevel Capture System will revert to the original memory levels that were set.

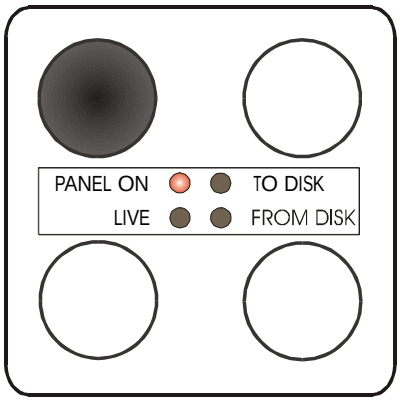
Full details of these functions are explained later in this guide.

NOTE: Your organ builder may have provided their own control panel. The functionality will be the same but the switches and lamps may be arranged differently.

USING THE LIVE METHOD

1/. First, make sure a Total Recall floppy disk is inserted in the disk drive.





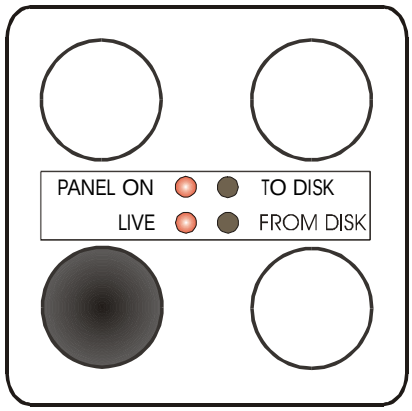
2/. Push the PANEL ON button on the control panel.

The green light on the disk drive will flash while the disk is checked and then the PANEL ON lamp will light and stay lit. If a freshly formatted disk is inserted there will be delay of approximately one minute while a safety copy of the system is made.

If this does not happen refer to the troubleshooting section on page16.

3/. Once the PANEL ON lamp is lit, push the LIVE button and hold in for three seconds until the disk can be heard being activated.

The LIVE lamp will flash approximately ten times and the green disk drive lamp will come on as the data is being read from the floppy disk into the Total Recall memory.



4/. When the LIVE lamp remains on with a steady glow the LIVE function is active and ready. Any pistons now set at the console within levels 1 to 32 (1 to 8 for larger consoles) will be recorded into Total Recall memory not into the main MultiLevel Capture System memory.

To maintain the speed of response you are familiar with, the Total Recall System does not save the new settings to the floppy disk at this time but keeps them in its own memory until the LIVE button is pressed once more to exit. At this time, all registration settings within memory levels 1 to 32 are saved onto the disk. DO NOT remove the disk until the green light is off.

As soon as the LIVE button is pushed to exit, the MultiLevel Capture System reverts to the main memory levels. You do not need to wait for Total Recall to complete the saving to floppy disk operation before using the MultiLevel Capture System and console pistons again..

To make Total Recall save the current settings without exiting the LIVE function, push and hold the console SET piston while pressing the LIVE button in the same manner as setting a regular piston. The current settings will then be saved to the floppy disk and Total Recall will remain in the LIVE mode ready to continue with further console work..

IMPORTANT NOTE: If the power to the MultiLevel Capture System and Total Recall is switched off while in LIVE mode then all Total Recall Memories set since the last save to disk operation will be lost.

Which console settings are saved using the LIVE method?

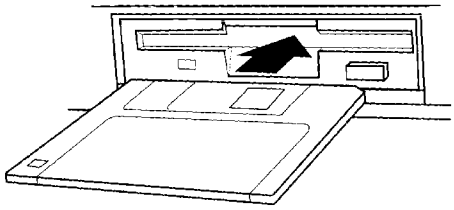
- All General and Divisional piston contents from the first 32 memory levels. (8 levels on some larger consoles)
- Programmable Crescendo A (if fitted)
- All blind functions such as Tuttis, Ventils, Cancels and Settable Reversers
- The Lock or Unlocked status of the memory levels
- Any optional LIST piston sequencer memories on the first 32 levels. (8 levels on some larger consoles)

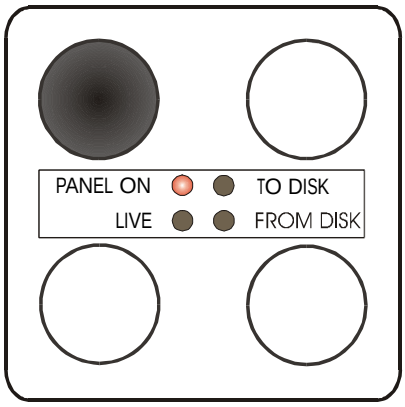
Which console settings are **NOT** saved using the LIVE method?

- Crescendo Standard, Programmable Crescendos B and C.
- Page Zero default memory for the clear function.

USING THE BACKUP METHOD

1/. First, make sure a Total Recall floppy disk is inserted in the disk drive





2/. Push the PANEL ON button on the control panel.

The green light on the disk drive will flash while the floppy disk is checked and then the PANEL ON lamp will light and stay lit.

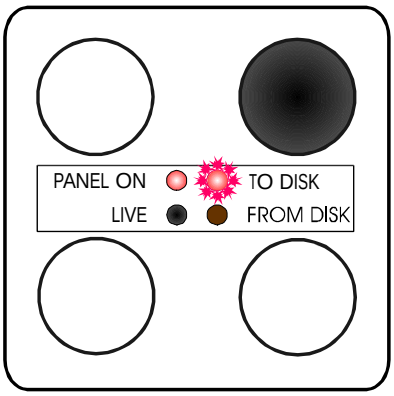
If a freshly formatted disk is inserted there will be delay of approximately one minute while a safety copy of the system is made.

If this does not happen refer to the troubleshooting section on page 16.

You now have to choose whether you are going to save your console memory level settings to the floppy disk, or restore previous memory level settings from the floppy disk to the console.

To Save the Console Memory Levels to Disk

Once the PANEL ON lamp remains constantly lit, push and hold the TO DISK button for approximately three seconds until you hear that the floppy disk is activated. The TO DISK lamp will then flash for approximately one minute as all the memory levels are saved to the floppy disk.



This operation will copy every memory level on the console and is limited only by the number of memory levels that your MultiLevel Capture System is fitted with.

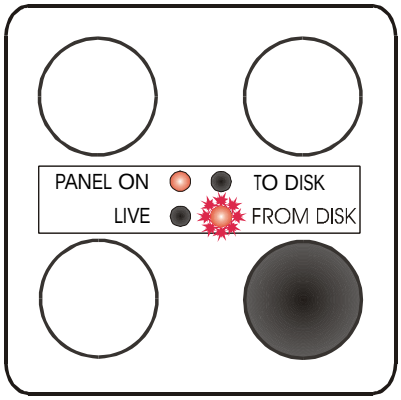
Warning – Pressing TO DISK will overwrite any existing information stored on the floppy disk and there will be no warning. Previous information will be lost.

When the back up is complete the lamp will remain lit continuously for a short while and then go out.

To Restore Settings From a Floppy Disk into the Console Memory Levels

Once the PANEL ON lamp remains constantly lit, push and hold the FROM DISK button for approximately three seconds until you hear that the floppy disk is activated. The FROM DISK lamp will then flash for approximately one minute as all the memory levels are read from the disk.

As this will destroy any piston settings that you have made on the console it is suggested that you make a spare copy of these on a floppy disk first using the TO DISK command.



Warning – Pressing FROM DISK will overwrite any exisiting information stored in the console memory levels and there will be no warning. Previous information will be lost.

When the back up is complete the lamp will remain lit continuously for a short while and then go out. When the restore is completed simply push any general piston to reset the console.

BecauseTotal Recall restores information directly into the MultiLevel Capture System memory levels you will observe changing effects on the console during the FROM DISK progress. This is nothing to be concerned about and is a normal part of the restore process.

FROM DISK will leave the console at the same memory level that was selected when the TO DISK back up was performed. So if you were on level 23 when you pressed FROM DISK, then the console will return ready at level 23 to continue.

Which console settings are saved using the TO DISK backup method?

- All general and divisional pistons on all memory levels
- Crescendo A B C and Crescendo Standard
- All blind functions such as Tuttis, Ventils, cancels, settable reversers
- Lock or unlock status of the memory
- Optional LIST memories for piston sequences
- Page Zero default memory for the clear function

Which console settings are **NOT** saved using the TO DISK backup method?

- Nothing – everything is saved!

Multiple Floppy Disk Backups

Total Recall is able to store data for the largest console you would want to play. However there is a limit to the number of stops that can be stored on a single floppy disk. Therefore, on larger consoles, the backup may spill over onto more than one floppy disk.

If this happens the TO DISK lamp will flash rapidly at the end of a back up and the green light on the disk drive will go out. If this happens the system needs a new floppy disk to continue. Simply replace the floppy disk with a second one and push the TO DISK button again to continue and finish the process.

Restoring From Multiple Floppy Disk Backups

Floppy disks may be inserted into the disk drive in any order and Total Recall will restore the information from them into to the correct place.

When each disk restore has completed the FROM DISK lamp will flash rapidly until another disk from the set is inserted into the drive. When the full set of disks has been used (normally two or three) the lamp will extinguish and the system will be made ready to use by pressing any general piston.

SOME QUESTIONS AND ANSWERS

Can I store both LIVE and BACKUP data on the same disk?

Yes. Each disk will store one copy of the entire console backup (all levels) and one set of live memories.

What if I switch off when LIVE is still lit?

All the pistons that you have set in the Total Recall LIVE memory will revert to their previous setting on the disk. The console memory will be unchanged.

What if I accidentally hit FROM DISK?

It will not overwrite all your current settings unless you hold the button deliberately for at least three seconds. Also, switching off the panel when not in use using the PANEL ON button will prevent this.

What if I insert a blank formatted disk for the first time?

When you push PANEL ON Total Recall will add any operational system files it needs to the floppy disk. For a blank disk this will take about one minute and the PANEL ON lamp will flash. To prevent possible disasters when accidentally pushing FROM DISK a copy is made of all the memories at this point and placed on the disk.

I insert a blank disk and push PANEL ON. The lamp lights, but no further operation is successful.

The disk is not correctly formatted. It may be blank but not freshly formatted. Try reformatting the disk in your computer. See elsewhere this manual for more instructions.

What if I insert a blank formatted disk and push FROM DISK when the PANEL ON lamp is lit?

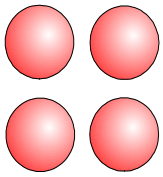
Nothing as inserting a blank disk will initiate a FROM DISK command first.

CONFIRMING CORRECT OPERATION OF YOUR TOTAL RECALL

If you have reason to suspect that the Total Recall function at the console is not operating correctly, the the following routines can be used to help you decide whether you need to seek further assistance from your organ builder.

For each routine, first position yourself so that you can see the control panel clearly when you switch the organ on. If the Total Recall is operating correctly, all four lamps on the control panel will flash for a split second when the power is applied at start up. If not, please refer to "System not Responding" in the trouble shooting section later in this guide.

One flash = System OK



Important First Steps .....

Before turning your attention to Total Recall, first establish that the MultiLevel Capture System is functioning normally.

Check that all the console piston functions are correct, and that you can set pistons and crescendo settings if they are present. *For more information on this please refer to the MultiLevel Capture System operating guide that came with the system, download a new one from the SSOS website at www.ssosystems.com or call us for a free replacement.*

Only when you are confident that the MultiLevel Capture System is known to be OK should you move on to check the Total Recall as follows:

- First, insert one of the Total Recall disks that came with the system into the drive. Or you may use any blank IBM formatted 3 ½" HD floppy disk.
- Second, push the "PANEL ON" button on the control panel.

  With a newly formatted disk, the PANEL ON lamp will flash for about one minute while the system files are being copied to the disk. During this time the green light on the disk drive will be lit. If this does not happen refer to the troubleshooting guide on page 16.

  A more detailed procedure for the following may be found earlier in the operating guide but for completeness of these instructions the following will check that the system is functioning correctly.

There are now two routines to follow, one for each operating mode of Total Recall .....

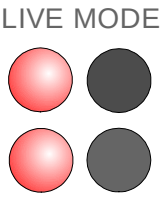
Routine One – Checking Live Mode

1. Confirm that the PANEL ON lamp only is lit (the other three on the control panel should be off).

2. Select a Memory Level on the MultiLevel Capture System.

3. If there are combinations set on this level, remember what they look like. If the level is either blank or contains meaningless combinations set some that you can remember on both general and divisional pistons.

4. Now press the LIVE button on the Total Recall control panel, and wait for the LIVE lamp to come on and remain lit. (If it doesn't, then refer to the troubleshooting section on page 16).



5. Now push the same general and visional pistons. If a new floppy disk is being used and all is well, they should be blank and recall no combinations.

6. Prepare and set some new and different combinations into these pistons and double-check that they are correctly saved in the pistons on the memory level.

7. Now press the LIVE button once again to turn the LIVE lamp off.

8. Press the same selection of pistons to confirm that the original combinations set in the MultiLevel Capture System have correctly returned.

Routine Two – Checking Backup and Restore Mode

Make sure that the console is at the same status as identified in "Important First Steps .....".

1/. Using either the same floppy disk or a fresh one if you want, push the TO DISK button.

The LIVE data and the Backup data can both fit onto the same floppy disk at the same time.

The TO DISK lamp will start and continue to flash while the settings of all of the memory levels from the MultiLevel Capture System are being copied to the floppy disk. You will also see that the green lamp on the disk drive will be lit during this process. (Larger consoles may require multiple disks, see page 11 for more information).

2/. After almost one minute of flashing the TO DISK lamp will remain constantly lit for a short time and then go off. This indicates the contents of the MultiLevel Capture System memory levels have been successfully saved to the floppy disk.

3/. Make some easily recognisable changes to the combinations saved to pistons on different memory levels and remember where they are.

4/. Now restore the settings previously saved to the floppy disk by pressing the FROM DISK button on the control panel. This time the FROM DISK lamp will flash for almost a minute while the data is restored from the floppy disk back into the memory levels of the MultiLevel Capture System.

During this process you may also see various changes of lamps on the console during this time. This is quite normal.

(If you required more than one disk to complete the TO DISK operation in step 1 above, then you will need to have these additional disks ready).

5/. After almost one minute of flashing the FROM DISK lamp will remain constantly lit for a short time and then go off. This indicates the contents of the MultiLevel Capture System memory levels have been successfully copied from the floppy disk back into the MultiLevel Capture System memory levels.

6/. Now press some of the pistons that you noted when making the changes in step three above. You should now find that the settings have changed to become the piston settings that were originally prepared and saved in step two above. In other words, the easily recognisable changes to the piston setting made in step three have been overwritten.

This confirms the correct operation of the Total Recall facility on the console.

TROUBLE SHOOTING

Total Recall not responding:

If you have followed the routines described in "Confirming Correct Operation of Your Total Recall" and have been unable to get a response then you will need to refer to the installation manual. You may need to contact your organ builder for help with this

PANEL ON button or lamp does not work:

Confirm that the four red lamps flash briefly when power is first applied (i.e. the organ is switched on). If they do not then you will need to refer to the installation manual. You may need to contact your organ builder for help with this.

If they do, then carry out the routines described under "Confirming Correct Operation of Your Total Recall" in this guide to double-check correct functioning or collect any information that may be helpful to resolving the issue with your organ builder.

PANEL ON lamp flashes twice when the PANEL ON button is pushed:

If the PANEL ON lamp flashes twice after the PANEL ON button is pressed, then stops for a short period then flashes twice again, there is a floppy disk error.

Some things to check:

- Is there a floppy disk in the disk drive?
- Replace the floppy disk firmly and press the PANEL ON button again to retry the floppy disk.
- Is the floppy drive connected correctly? Does the green lamp on the disk drive light?
- Does the disk drive click when PANEL ON button is pressed? If not, the power cable may not be connected to the disk drive. *Please note that the disk drive does not always click and so this test is only a guide.*

Does the green lamp on the disk drive flash when the PANEL ON button is pushed? If not check to see if the ribbon cable connecting to the disk drive at the back of the console is plugged in correctly. It is possible to insert it the wrong way round. *Please note that you may need your organ builder's assistance with this.*

PANEL ON lamp flashes four times when PANEL ON button is pressed:

If the PANEL ON lamp flashes four times after the PANEL ON button is pressed, then stops for a short period then flashes four times again, there is a communication error with the MultiLevel Capture System.

This will probably require assistance from your organ builder to confirm that the red lamp on the MultiLevel Capture System processor is lit and that there is power to the system rack.

PANEL ON lamp lights correctly but LIVE lamp flashes twice when LIVE button is pressed:

Is the floppy disk a correctly formatted IBM HD floppy disk? If you are not sure, this will be printed on the pack the disk came in, or you can format the floppy disk it in an MS Windows computer. (Select '3 ½" Floppy A:' within 'My Computer'. Right click with the mouse on the disk icon to reveal the menu and choose 'Format').

It is not sufficient to just delete the existing files on a floppy disk. It must be fully formatted again to work correctly in the Total Recall disk drive.

I have upgraded from a previous Total Recall installation and my old floppy disks are not being read:

The newest version of Total Recall supports multiple disk backups and does so by labelling the floppy disks in order for subsequent recognition. The first version did not support this.

However if you have access to a Windows or DOS computer with a floppy drive it is quick and easy to modify your floppy disks because the Total Recall system uses a DOS based file system and recognises the Volume Label on each floppy disk

The procedure is as follows:

- In MS Windows, choose 'My Computer' and then right click on the 3 ½ " Floppy and select 'Properties'.
- The general tab will show the floppy disk Volume Label.

  Early version disk label: SSOSDATADISK

  New version Master label: MASTERDISK

- To update the floppy disk so that it can be read in newer systems, simply retype the Volume Label as MASTERDISK and click OK to save.

Your floppy disk will then be recognised by Total Recall.

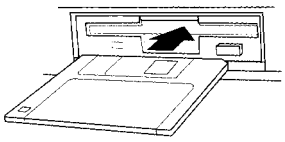
Total Recall Console Card

A Quickstart to using 'Live' Method

(Please use this method if you are unfamiliar with Total Recall).

Before you start!

Insert a new or correctly formatted floppy disk into the disk drive (see full manual).

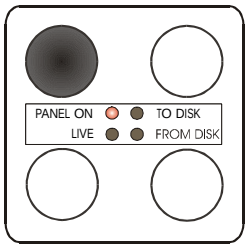


Now do this .....

1/. Push the PANEL ON button on the control panel.

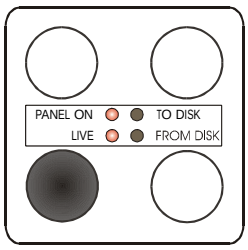
2/. Wait for green light on the disk drive to flash before the PANEL ON lamp lights.

If a correctly formatted disk is inserted there will be delay of approximately one minute while a safety copy of the system is made.



3/. Once the PANEL ON lamp is lit, push the LIVE button and hold in for three seconds until the disk can be heard being activated in the disk drive.

The LIVE lamp will flash approximately ten times and the green disk drive lamp will come on as the data is being read from the floppy disk into the Total Recall memory.



4/. When the LIVE lamp remains on with a steady glow the LIVE function is active and ready to use. Any pistons now set at the console within levels 1 to 32 will be recorded into Total Recall memory (not into the main MultiLevel Capture System memory).

During the next step DO NOT remove the disk until the green light is off.

As soon as the LIVE button is pushed to exit, the MultiLevel Capture System reverts to the main memory levels of the organ. You do not need to wait for Total Recall to complete the saving to floppy disk operation before using the MultiLevel Capture System and console pistons again.

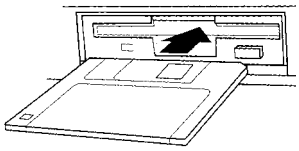
IMPORTANT NOTE: If the power to the MultiLevel Capture System and Total Recall is switched off while in LIVE mode then all Total Recall Memories set since the last save to disk operation will be lost.

Total Recall Console Card

A Quickstart to using 'Backup' Method

Before you start!

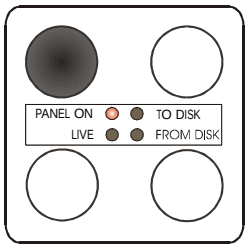
Insert a new or correctly formatted floppy disk into the disk drive (see full manual).



Now do this .....

1/. Push the PANEL ON button on the control panel.

2/. Wait for green light on the disk drive to flash before the PANEL ON lamp lights.

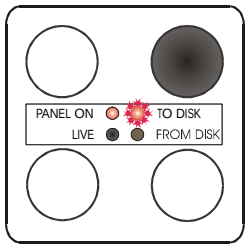


If a correctly formatted disk is inserted there will be delay of approximately one minute while a safety copy of the system is made.

You now have to choose whether you are (A) going to save your console memory level settings to the floppy disk, or (B) load previous memory level settings from the floppy disk into the console.

(A) I want to Save my Console Memory Levels to Disk .....

..... when the PANEL ON lamp remains constantly lit, push and hold the TO DISK button for approximately three seconds until you hear that the floppy disk is activated. The TO DISK lamp will then flash for approximately one minute as all the memory levels are saved to the floppy disk.

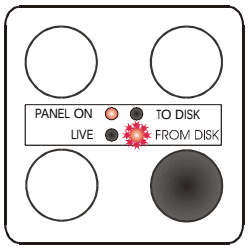


Warning – Pressing TO DISK will overwrite any existing information stored on the floppy disk and there will be no warning. Previous information will be lost.

When the back up is complete the lamp will remain lit continuously for a short while and then go out. The floppy disk can be removed.

(B) I want to Load my Settings From a Floppy Disk into the Console Memory Levels .....

..... when the PANEL ON lamp remains constantly lit, push and hold the FROM DISK button for approximately three seconds until you hear that the floppy disk is activated. The FROM DISK lamp will then flash for approximately one minute as all the memory levels are read from the disk.



Warning – Pressing FROM DISK will overwrite any exisiting information stored in the console memory levels and there will be no warning. Previous information will be lost. We recommend that you make an advance backup.

When the back up is complete the lamp will remain lit continuously for a short while and then go out. When the restore is completed simply push any general piston to reset the console.

Notes

Please use this page to make any helpful notes.