



**ANASPEC** c.c.

*SUPPORT AND SUPPLY OF ANALYTICAL EQUIPMENT.*

# ***New Installation Procedure Manual***

## ***Introduction to this Manual***

This manual serves to assist with the smooth and professional installation of a new system for a customer.

In all cases a quotation would have been supplied to a company to do the installation. Therefore this manual also gives some ideas on how to go about the quotation part of doing a new installation.

The next stage will be the acceptance of this quotation and the fact that the configuration for this customer might change over the months leading up to a successful order.

Once the sales person has obtained the order number for the new system, there are again some ideas on how to make sure no error has crept in on the Quotation part of a new install.

Once the order has been placed, pre installation site checks need to be done to make sure the facilities on site match the requirements. This pre installation site check manual is part of this document so that at the time of the actual installation, the comments made at these site inspections can be reviewed.

The last part of the manual deals with the recommended procedures and actions the engineer should take when actually installing the system.

Keep in mind that one of the best policies to have when working with sophisticated equipment is, Plan for the worst then nothing can surprise you.

In this way some of the suggested actions, like constantly letting the factory know how things are going, is there so that you don't just call them when all has failed and now they may think the engineer did something wrong.

This manual has been used over a number of years and has proven to save on unnecessary arguments in front of clients and landed up in many successful installations.

## ***Quotation for Installation***

The quotation for the installation of the system, to the customer, must include the following:

1. A detailed description on the system or components of a system that the quotation relates to.
2. Contact details for the person the quotation has been supplied to and the end user details.  
If you are quoting a sales agent, they are the customer. The end user is the company who will be using the system.
3. The date the quotation was prepared and given to the customer. If possible an expected date of installation. Keep in mind that charging rates change each year.
4. Clearly show the rates charged and where applicable the discount rate given.
5. Check the model of the system to be installed to plan for any engineer factory training that may be necessary.
6. Pre-installation Site inspection cost. Travel, time on site, and where necessary accommodation, magnetic field test cost, vibration check cost, subsistence allowance. In the case of a new user, 2 days on site would be the minimum requirement.
7. Installation cost should include travel, time on site, spares and consumables and where necessary accommodation, subsistence allowance. Keep in mind that at each installation the engineer uses cable ties, plugs, extra extension cables etc.
8. You **MUST** indicate the training requirements for the new system. The service engineer need only demonstrate to the new user that the system functions.  
If the client needs operator application training, this should be charged for separately or arranged with the factory. This could be the installation engineer or a third party.
9. There should be the recommended preventative maintenance call outs for the system.
10. The estimation of how many emergency call outs may be needed, will depend on the complexity of the system, the experience of the operator or operators, the type of work to be performed, the age of the model of system sold and various other factors. These factors should be defined in the quote.
11. VAT/GST inclusive and validity of the quotation must be stated clearly.
12. Indicate who is responsible for shipping costs of spares under warranty. Return of goods.

Do this quotation in the correct Excel spread sheet. Anaspec will have a spreadsheet for each outsourcing product. By keeping all the quotes in one spreadsheet it is very easy to copy a previous quote and check a current one.

Then fax or email this quotation on a letterhead to the correct person in PDF format. Don't send them a copy of the excel spreadsheet.

**Include a copy of the Installation and warranty protocol document to make sure they understand that should they change the configuration of the system to be installed, they will require a new quote.**

## ***Acceptance of quotation***

Should the sale materialize and a call is received to start with the preparation for the installation of the equipment, first go back and confirm with the sales person that the quotation is still valid and correct for the equipment listed. Very often things have changed from the original quotation. Correct the quotation where necessary.

Again check that the necessary training has been received for the equipment we are quoting on.

## ***Installation documentation file***

At this stage the engineer should open a file and start to collate all the relevant documents for the installation into this file.

Putting in dividers helps to keep the file neat.

The idea here is that this file will have all the data, in one place, so that if different engineers work on the “project” all the information is still in one place.

**The eventual owner of this file will be the end user.**  
**So keep it neat and tidy.**

The idea being that all documentation relating to the installation will be in this file and so during the installation, reference can be made to it. Once the installation is completed, if there are any queries the end user may have regarding what was promised, it can be sorted out immediately without delaying the signing off.

Normally with a new installation there are various calibration certificates, warranty sheets and manuals. These must then also be filed in this file. Again making sure that all relevant documents are in one place and easy to find.

This now means that during the warranty period, if there are any warranty issues, all matters can be resolved very quickly by checking the original quotes, warranty certificates and installation calibration certificates.

## ***Pre-installation site inspection procedure***

Contact the customer and end user and arrange a date to visit for the site inspection.

Enter the end user details on the service program. If the support agreement was accepted for the installation and warranty, enter that in the service program and make the start date as of that date. The end of the contract is the important thing and so this can be adjusted once the commissioning has taken place.

By entering the end user details on the program at this stage, colleagues will know where to get hold of you should you be on site. Also your service report for the site inspection can then be booked to the contract.

Support Engineer Name	
Contact Numbers	
Date	
<b>Customer/ Sales Agent details.</b>	
Company	
Sales person	
Contact numbers	
<b>End user details.</b>	
Company	
Contact person	
Contact numbers Tel: & Fax	
Email	
Address	
Previous experience on system	
Recommended accommodation details. Name, Tel and rates	

<b>System Details</b>	
Make and Model	
Accessories supplied	
Sample preparation equipment??	
UPS or water chiller to be used	
Check customer expectation with configuration supplied. Is this what was expected.	
Ensure all consumables are available.	
Discuss training with client	
Discuss customer expectations and suitable dates.	
Discuss installation, warranty and support callout criteria and issues.	
<b>On-Site Inspections</b>	
Surrounding the selected room is what?	
Accessibility to building. Roads etc.	
Ramps, stairs, lifts to room	
Door width. Numbers of doors Any alterations needed. Sliding door rails?	
Air-conditioning or climate control	
On-site air condition technical support.	
Lighting in the room. Down lighters, fluorescent, natural sunlight.	
Flooring style/type. Tiles, carpets or Novalon	

Facilities for the storage of boxes before and after the installation	
Forklifts, moving equipment to help move the system in place?	
Removal of an old system ?	
<b>Mains supply</b>	
Earth	
Neutral V no more than 11 v	
Live V	
UPS/general mains condition?	
Dedicated line to DB board?	
Location of distribution board	
Onsite electricians available?	
Earth Leakage system installed?	
Previous records of mains stability in the area.	
Mains failure early shutdown warning system needed?	
Position of the mains connection in the room.	
<b>Water supply</b>	
Mains/chiller	
Location of chiller	
Water Temp	
Location of water connections.	
Drainage	
Previous history with water supply	

Onsite plumbers	
<b>Magnetic fields</b>	
Field strength measured	
Possible sources of concern	
Time and duration of measurement.	
<b>Vibration</b>	
Vibration test done by.	
General comments on possible concerns on vibration	
SC11 kit used.	
Factory pre-install check list completed.	
Time and Duration of the measurement.	
<b>General</b>	
Noise in and around the room	
Surrounding rooms and their contents.	
Safety standards for the site.	
Networking and IT assistance	
Anti-virus support	
Any other general comments or concerns	

## ***New Installation Checklist***

Based on previous experience, if the correct procedures are followed, there is less chance of having a bad installation.

Remember the fact that a warranty of 12 months is given on all this equipment which implies that some components may fail. This does not imply that you will have a bad installation, just a lengthy one.

**A bad installation is the one where the service engineer, the end user, the sales rep and the factory are all blaming each other for incompetence.**

Therefore at all stages make sure you do the correct paperwork which means there is a trail that can be followed.

Installation checklist compiled by:

Date:.....

Engineer name:.....

System description: .....

1. Get an original copy of the configuration of the system to be installed.  
This should be from the sales representative and make sure that the copy you get is the same as what the end user has.

Date configuration received: ..... Confirmed: .....

2. Establish what the expected date for the delivery of the system is. This should be done in collaboration with the sale representative. If there are difficulties there, then contact the factory. It is also very useful to discuss the system with the factory as they may be able to tell you if there are any "surprises" on the system

Expected Delivery Date(s):.....  
.....

3. Once the instrument has been shipped, obtain a tracking number. At reasonable intervals, check with shipping company for status.

Inform the customer and check that there is sufficient means to get the instrument to the site should it need to be moved (Forklift, truck etc)

Date(s):..... Tracking Number:.....

Transport co:..... Contact numbers:.....

Status:.....

4. At least a week before delivery, visit or check with the end user if the site has been prepared. And complete the pre installation site inspection sheet.

Date of Pre-install site visit:..... Engineer:.....

Comments on the site inspection that should be noted:

.....  
.....

**On site installation Procedure**

With installation the system, remember that there are financial implications too. In some cases the payment terms agreed with the end user by the customer, would include payments being made on placing of the order, on delivery of the system on site, on completion of the installation and then on it being a proven system.

For this reason, it is best to keep all informed on the progress of an installation and not just at the end of the installation.

It is now when “planning for the worst and hoping for the best” will come into action. As an example, if you notice that crates are badly damaged on delivery, by noting this down and letting others know, will free you from blame should the system not work caused by this crating problem.

Herewith then an on site suggested check list.

- 1. Once delivery has taken place, check the condition of the packaging (Tilt tellers, shock indicators and obvious damage or tampering). Do this with the customer if possible.

Date:..... Engineer:.....

Tilt Teller:..... Shock Indicator:.....

Comments:.....  
.....  
.....

Report the status to the factory and the customer/Sales person if damage is noticed.

- 2. On unpacking the system, check all contents as they are removed, possibly with the end user present. Check them off on the shipping list and the configuration list to establish full delivery of the system.

Note any damaged or missing goods on the list and inform the factory thereafter. Ensure that yourself and the customer sign all checklists and shipping documents to confirm full delivery.

Fill in the first part of the Anaspec commissioning certificate that deals with the delivery part. Fill out the commissioning certificate with all the serial numbers. If anything is missing or should be noted, this should be filled in under the exceptions part of the document.

Date:..... Engineer:.....

Comments

.....  
.....

.....  
Once the delivery part of the commissioning certificate has been signed, fax a copy to the Customer/Sales representative and possibly the factory.

**It is possible that payment is due on delivery of the system.**

3. Now start assembling the system and test all its functions.  
Once you are happy that the main system is working correctly, add auxiliary equipment one at a time and test their functionality.

Please fill in the date the system was functional as this gives us proof on how long it takes to install a system like this.

Date tested:.....

4. Once all equipment is installed and tested, contact the factory and report any faults (or lack of faults).  
Again, this is better done by e-mail or fax. All communication with regards to the instrument (factory, customer etc) should be kept in a file for reference in case of discrepancies between any parties involved.

Date of initial completion:.....

5. Demonstrate the functionality of the system to the end user. Please note demonstrating functionality does not imply training them how to experts on the application.

Customer signature.....

6. Complete the commissioning certificate.  
Noting that all the serial numbers have been entered and that software versions are on that document. These become very handy should a failure occur and replacements have to be ordered.

7. The final TEST. Get the commissioning certificate signed by the end user.

8. Explain the terms of the warranty and support agreement to the end user. Clearly indicate any conditions that could invalidate the warranty on the system.  
Demonstrate the safety features that may need testing. Ln2 sensors, stage touch alarms and over heating situations.

Customer signature.....

9. Demonstrate user functions for maintenance on the system.

Customer signature.....

10. Inform the client of the first expected date for the preventative maintenance visit and end of warranty date.

Date end of warranty:.....