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## Record Formats

### Header Formats

The following tables represent the format for the record layouts used by ARB N\_SIGHT AMR.

**Table 4.3 Company Record Format**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	UB	1-5	5	A/N	'COMHD'
Company Code	Req	UB	6-9	4	A/N	
Create Date	Req	UB	10-17	8	NUM	YYYYMMDD
Description	Opt	UB	18-57	40	A/N	
File Version	Req	UB	58	1	NUM	'2'
Service Orders	Req	UB	59	1	BOO	Y or N
CRLF	Req	UB	60-61	2		

**Table 4.4 Route Record Format**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	UB	1-5	5	A/N	'RTEHD'
Office	Req	UB	6-9	4	A/N	
Cycle	Req	UB	10-13	4	A/N	
Route	Req	UB	14-23	10	A/N	

Column	Use	Source	Offset	Length	Type	Comment
Read Date	Req	UB	24-31	8	NUM	YYYYMMDD; 00000000 if not used.
Deactivate Date	Req	UB	32-39	8	NUM	YYYYMMDD; 00000000 if not used.
Route Message	Opt	UB	40-119	80	A/N	
CRLF	Req	UB	120-121	2		



The Route ID in ARB N\_SIGHT AMR is a combination of the Company Code, Office, Cycle, and Route fields.

**Table 4.5 Premise Details Record Format**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	UB	1-5	5	A/N	'PRMDT'
Address 1	Req	UB	6-31	26	A/N	
Address 2	Opt	UB	32-57	26	A/N	
Customer Name	Req	UB	58-83	26	A/N	
Premise Key	Req	UB	84-103	20	A/N	Uniquely identifies the premise. Use account number, unless the billing system has a better key.
Account Number	Req	UB	104-123	20	A/N	
Account Status	Req	UB	124-127	4	A/N	Account status codes
Premise Custom 1	Opt	UB	128-153	26	A/N	Custom display fields for premise screen.
Premise Custom 2	Opt	UB	154-179	26	A/N	
Utility Pass Through	Opt	UB	180-307	128	A/N	Any utility-defined information.
CRLF	Req	UB	308-309	2		

**Table 4.6 Alternate Premise Detail Record Format<sup>1</sup>**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	UB	1-5	5	A/N	'PRMD2'
Premise Key	Req	UB	6-25	20	A/N	
Customer Name 1	Req	UB	26-51	26	A/N	
Customer Name 2	Opt	UB	52-77	26	A/N	
Customer Contact	Opt	UB	78-103	26	A/N	
Account Number	Req	UB	104-123	20	A/N	
Account Status	Req	UB	124-127	4	A/N	Account status codes
Customer Address House Number	Req	UB	128-134	7	A/N	
Customer Address HSuffix	Req	UB	135-141	7	A/N	
Customer Address Unit	Req	UB	142-156	15	A/N	
Customer Address Predir	Req	UB	157-158	2	A/N	
Customer Address Street	Req	UB	159-183	25	A/N	
Customer Address SSuffix	Req	UB	184-187	4	A/N	
Customer Address Postdir	Req	UB	188-189	2	A/N	
Customer Address City	Req	UB	190-215	26	A/N	
Customer Address State	Req	UB	216-217	2	A/N	

<sup>1</sup>Reserved for future use*continued on next page*

**Table 4.6 Alternate Premise Detail Record Format<sup>1</sup> (Continued)**

Column	Use	Source	Offset	Length	Type	Comment
Customer Address Zip	Req	UB	218-228	11	A/N	zzzzz-zzzz
Customer Phone 1	Opt	UB	229-238	10	A/N	
Customer Phone 2	Opt	UB	239-248	10	A/N	
Mail Name 1	Opt	UB	249-274	26	A/N	
Mail Name 2	Opt	UB	275-300	26	A/N	
Mail Address 1	Opt	UB	301-326	26	A/N	
Mail Address House Number	Opt	UB	327-333	7	A/N	
Mail Address HSuffix	Opt	UB	334-340	7	A/N	
Mail Address Unit	Opt	UB	341-355	15	A/N	
Mail Address Predir	Opt	UB	356-357	2	A/N	
Mail Address Street	Opt	UB	358-382	25	A/N	
Mail Address Suffix	Opt	UB	383-386	4	A/N	
Mail Address Postdir	Opt	UB	387-388	2	A/N	
Mail City	Opt	UB	389-414	26	A/N	
Mail State	Opt	UB	415-416	2	A/N	
Mail Zip	Opt	UB	417-427	11	A/N	zzzzz-zzzz
Mail Phone	Opt	UB	428-437	10	A/N	
Permit	Opt	UB	438	1	BOO	Y/N

<sup>1</sup>Reserved for future*continued on next page*

**Table 4.6 Alternate Premise Detail Record Format<sup>1</sup> (Continued)**

Column	Use	Source	Offset	Length	Type	Comment
Premise Custom 1	Opt	UB	439-464	26	A/N	
Premise Custom 2	Opt	UB	465-490	26	A/N	
Utility Pass Through	Opt	UB	491-618	128	A/N	
CRLF	Req	UB	619-620	2	A/N	

<sup>1</sup>Reserved for future use

**Table 4.7 Premise Notes Record Formats (Optional)**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	UB	1-5	5	A/N	'PRMNT'
Hazard Code	Opt	UB	6-9	4	A/N	
Changed Hazard Code	Opt	HH	10-13	4	A/N	Changed value coming back from field
Hazard Text	Opt	UB	14-39	26	A/N	Freeform hazard text
Changed Hazard Text	Opt	HH	40-65	26	A/N	
Special Instruction	Opt	UB	66-365	300	A/N	
Special Instruction 2	Opt	UB	366-665	300	A/N	
Changed Special Instruction	Opt	HH	666-965	300	A/N	
Changed Special Instruction 2	Opt	HH	966-1,265	300	A/N	
Force Special Instruction	Req	UB	1,266	1	BOO	'Y' or 'N'
Force Special Instruction 2	Req	UB	1,267	1	BOO	'Y' or 'N'
Changed Force Special Instruction	Req	HH	1,268	1	BOO	'Y' or 'N'
Changed Force Special Instruction 2	Req	HH	1,269	1	BOO	'Y' or 'N'
CRLF	Req	UB	1,270-1,271	2		

**Table 4.8 Meter Detail Record Formats**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	UB	1-5	5	A/N	'MTRDT'
Read Sequence	Req	UB	6-11	6	NUM	Right-justify, zero-fill
Changed Read Sequence	Opt	HH	12-17	6	NUM	Changed value coming back from field.
Meter Key	Req	UB	18-37	20	NUM	Key to identify the meter within the premise_key. Use meter number for this unless the billing system has a better key.
Meter Number	Req	UB	38-57	20	NUM	
Changed Meter Number	Opt	HH	58-77	20	NUM	Actual meter number found in field.
Meter Type	Req	UB	78-81	4	A/N	
Changed Meter Type	Opt	HH	82-85	4	A/N	
Meter Size	Opt	UB	86-93	8	A/N	
Changed Meter Size	Opt	HH	94-101	8	A/N	
Meter Manufacturer	Opt	UB	102-104	3	A/N	Three-character code for the meter manufacturer.

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**Table 4.8 Meter Detail Record Formats**

Column	Use	Source	Offset	Length	Type <sup>1</sup>	Comment
Changed Meter Manufacturer	Opt	HH	105-107	3	A/N	
Meter UOM	Opt	UB	108-110	3	A/N	Unit Of Measure - for display purpose only. <i>Example:</i> CF = cubic feet.
Changed Meter UOM	Opt	HH	111-113	3	A/N	
Meter Location	Opt	UB	114-117	4	A/N	
Changed Meter Location	Opt	HH	118-121	4	A/N	
Meter Location 2	Opt	UB	122-125	4	A/N	
Changed Meter Location 2	Opt	HH	126-129	4	A/N	
Read Instruction 1	Opt	UB	130-133	4	A/N	
Changed Read Instruction 1	Opt	HH	134-137	4	A/N	
Read Instruction 2	Opt	UB	138-141	4	A/N	
Changed Read Instruction 2	Opt	HH	142-145	4	A/N	
Seal Number	Opt	UB	146-155	10	A/N	
Changed Seal Number	Opt	HH	156-165	10	A/N	
Set Date	Opt	UB	166-173	8	A/N	YYYYMMDD. Optional; from billing system.

<sup>1</sup>Only uppercase allowed*continued on next page*

**Table 4.8 Meter Detail Record Formats**

Column	Use	Source	Offset	Length	Type	Comment
Meter Custom 1	Opt	UB	174-199	26	A/N	
Meter Custom 2	Opt	UB	200-225	26	A/N	
Meter Condition Code 1	Opt	HH	226-229	4	A/N	
Meter Condition Code 2	Opt	HH	230-233	4	A/N	
Must Read Code	Opt	UB	234	1	BOO	'Y' or 'N' Must read if 'Y'.
Collector Error	Opt	HH	235-244	10	A/N	Values it contains will change based upon the collector type used.
Prev Read Date	Opt	UB	245-252	8	A/N	YYYYMMDD
Constant / Multiplier	Opt	UB	253-258	6	A/N	Data for electric meters.
Changed Constant / Multiplier	Opt	HH	259-264	6	A/N	
Xcoord	Opt	UB	265-276	12	A/N	Longitude
Ycoord	Opt	UB	277-288	12	A/N	Latitude
Xcoord2	Opt	UB	289-300	12	A/N	For future use
Ycoord2	Opt	UB	301-312	12	A/N	For future use
Xcoord3	Opt	UB	313-324	12	A/N	For future use
Ycoord3	Opt	UB	325-336	12	A/N	For future use
CRLF	Req	UB	337-338	2		

**Table 4.9 Order Status (Export  
file only) Record Formats**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	HS	1-5	5	A/N	'ORDST'
Completion Date	Req	HH	6-13	8	NUM	YYYYMMDD
Time Stamp	Req	HH	14-19	6	NUM	HHMMSS
Elapsed Time	Req	HH	20-24	5	NUM	Elapsed time in Seconds
Reader ID	Req	HH	25-44	20	A/N	
Order Status	Req	HH	45-46	2	A/N	IN - incomplete CO - complete SK - skipped
Skip Code	Req	HH	47-50	4	A/N	Only if order_status = 'SK'
Comment Code 1	Req	HH	51-54	4	A/N	
Comment Code 2	Req	HH	55-58	4	A/N	
Notes Back	Req	HH	59-186	128	A/N	
CRLF	Req	HS	187-188	2		

**Table 4.10 Read Detail Record Formats**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	UB	1-5	5	A/N	'RDGDT'
Read Type	Req	UB	6-9	4	A/N	Details of a particular register, for example: <ul style="list-style-type: none"> <li>• HIGH</li> <li>• LOW</li> <li>• KVAR</li> <li>• KW</li> <li>• KWH</li> <li>• WTR</li> <li>• W1</li> </ul>
Collection ID	Req	UB	10-29	20	A/N	Use 'spaces' if device provides no ID value.
Changed Collection ID	Opt	HH	30-49	20	A/N	
Dials	Req	UB	50-51	2	NUM	
Changed Dials	Opt	HH	52-53	2	NUM	
Decimals	Req	UB	54-55	2	NUM	
Changed Decimals	Opt	HH	56-57	2	NUM	
Read Direction	Opt	UB	58	1	A/N	R, L, C, or blank only
Hi Limit	Req	UB	59-68	10	NUM	
Low Limit	Req	UB	69-78	10	NUM	
Prev Read	Req	UB	79-88	10	NUM	
Reading	Req	HH	89-98	10	A/N	

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**Table 4.10 Read Detail Record Formats**

Column	Use	Source	Offset	Length	Type	Comment
Collector Reading	Req	HH	99-108	10	A/N	Actual reading that came from collector, before truncation
Read Code	Req	HH	109-110	2	A/N	
Re-entry Count	Req	HH	111-112	2	NUM	
Water No Flow 35 Days	Req	HH	113	1	NUM	
Peak Backflow	Req	HH	114	1	NUM	Reverse Flow Event
Leak 35 Days	Req	HH	115	1	NUM	
Current Leak	Req	HH	116	1	NUM	Leak Status
Previous Error Count	Opt	UB	117	1	NUM	R900 Electric or Gas tamper. Use '8' to suppress tamper check.
Current Error Count	Req	HH	118	1	NUM	Current error/tamper count for R900 Electric or Gas
Fatal Error	Req	HH	119	1	NUM	Fatal error flag for R900 Electric
Non-Fatal Error/Flags	Req	HH	120	1	NUM	Non-fatal error flag for R900 Electric or Gas
Voltage	Req	HH	121-123	3	NUM	Operating meter voltage for R900 Electric
MIU Type	Req	HH	124-125	2	NUM	Utility meter type
AMR Read Type	Req	HH	126-127	2	NUM	AMR reading type

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**Table 4.10 Read Detail Record Formats**

Column	Use	Source	Offset	Length	Type	Comment
High Power	Req	HH	128	1	NUM	High versus low power indicator for all R900s
R900 Format	Req	HH	129-130	2	NUM	The R900 reading format: 0 - Binary 1 - BCD 2 - "Data Stream" (not used) 3 - E-Coder 4 - Mlog
Display Digits	Req	HH	131	1	NUM	Number of digits in main reading display
Multiplier Applied	Req	HH	132	1	NUM	
Gas No Flow	Req	HH	133	1	NUM	Period for which there has been no gas flow
Current Gas Backflow Tamper	Req	HH	134	1	NUM	
Current Gas Removal Tamper	Req	HH	135	1	NUM	
Current Gas Magnetic Tamper	Req	HH	136	1	NUM	
ERT Inversion Tamper	Req	HH	137	1	NUM	
ERT Reverse Tamper	Req	HH	138	1	NUM	
35-Day Gas Backflow Tamper	Req	HH	139	1	NUM	
35-Day Gas Removal Tamper	Req	HH	140	1	NUM	
35-Day Gas Magnetic Tamper	Req	HH	141	1	NUM	

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**Table 4.10 Read Detail Record Formats**

Column	Use	Source	Offset	Length	Type	Comment
35-Day Program Flag	Req	HH	142	1	NUM	R900G only
Reed Switch Failure Flag	Req	HH	143	1	NUM	R900G only
Additional Flags	Req	HH	144-212	69		For future use
CRLF	Req	UB	213-214	2		

**Table 4.11 ERT Detail Record Formats (Optional)**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	UB	1-5	5	A/N	'ERTDT'
Tone	Req	UB	6-7	2	NUM	
Freq Channel	Req	UB	8-11	4	NUM	
Prev Tamper 1	Req	UB	12	1	A/N	Use '8' to suppress tamper check.
New Tamper 1	Req	HH	13	1	A/N	
Prev Tamper 2	Req	UB	14	1	A/N	Use '8' to suppress tamper check.
New Tamper 2	Req	HH	15	1	A/N	
ERT Type	Req	HH	16-17	2	A/N	
CRLF	Req	UB	18-19	2		

**Table 4.12 Probe Detail Record  
Format (Optional)**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	UB	1-5	5	A/N	'PRBDT'
Internal Meter ID	Req	UB	6-35	30	A/N	Primary meter identifier programmed in meter memory
Meter Model	Req	UB	36-45	10	A/N	Meter model code
Password	Req	UB	46-55	10	A/N	Probing password code
Demand Reset	Req	UB	56	1	BOO	'Y' or 'N' Perform Demand Reset if 'Y'
Clock Reset	Req	UB	57	1	BOO	'Y' or 'N' Perform clock adjustment if needed per configurable reset parameters if 'Y'
Load Profile Start	Req	UB	58-65	8	NUM	YYYYMMDD Starting date for load profile data reading. Empty means all available load profile read up to configurable time span limit.
DST Used Expected	Req	UB	66	1	BOO	'Y' or 'N' Is Daylight Savings Time used on the meter
Battery Time	Req	HH	67-76	10	NUM	Elapsed time on meter battery in seconds
EEPROM Error	Req	HH	77	1	BOO	'Y' or 'N' Meter memory error in EPROM if 'Y'

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**Table 4.12 Probe Detail Record Format (Optional)**

Column	Use	Source	Offset	Length	Type	Comment
RAM Error	Req	HH	78	1	BOO	'Y' or 'N' Meter memory error in RAM if 'Y'
ROM Error	Req	HH	79	1	BOO	'Y' or 'N' Meter memory error in ROM if 'Y'
Unprogrammed Error	Req	HH	80	1	BOO	'Y' or 'N' Meter not programmed if 'Y'
Firmware Version	Req	HH	81-100	20	A/N	Manufacturer firmware version
Hardware Version	Req	HH	101-120	20	A/N	Manufacturer hardware version
Meter Time	Req	HH	121-134	14	NUM	Time on meter clock when probed (YYYYMMDDHHMMSS)
Last Read Time	Req	HH	135-148	14	NUM	Time on meter clock when previously probed (YYYYMMDDHHMMSS)
Power Outage Count	Req	HH	149-152	4	NUM	Number of power outages
Probe Result	Req	HH	153-157	5	NUM	Probe session result. 0 for success, nonzero for various failures
Program Expiration	Req	HH	158-165	8	NUM	Last valid date for meter schedule programming (YYYYMMDD)
Program ID	Req	HH	166-175	10	A/N	The meter program identifier

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**Table 4.12 Probe Detail Record Format (Optional)**

Column	Use	Source	Offset	Length	Type	Comment
Programming Count	Req	HH	176-179	4	NUM	The number of times the meter has been programmed
DST Used Actual	Req	HH	180	1	BOO	'Y' or 'N' Whether the meter is programmed to use DST
Low Battery Warning	Req	HH	181	1	BOO	'Y' or 'N' Meter battery is low on power if 'Y'
Demand Reset	Req	HH	182-185	4	NUM	The number of demand resets performed on the meter
Reverse Power Error	Req	HH	186	1	BOO	'Y' or 'N' Reverse energy flow has been detected on the meter if 'Y'
Self Read Error	Req	HH	187	1	BOO	'Y' or 'N' Meter memory error - self-read programming or consumption data if 'Y'
TOU Data Error	Req	HH	188	1	BOO	'Y' or 'N' Meter memory error - Time Of Use programming or consumption data if 'Y'
Last Demand Reset	Req	HH	189-202	14	NUM	The date/time of the last demand reset (YYYYMMDDHHMMSS)
Transformer Factor	Req	HH	203-212	10	NUM	Meter transformer factor
Watthour Constant	Req	HH	213-222	10	NUM	Meter watthour constant
CRLF	Req	UB	223-224	2		

**Table 4.13 Route Trailer Record Format**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	UB	1-5	5	A/N	'RTETR'
Office	Req	UB	6-9	4	A/N	
Cycle	Req	UB	10-13	4	A/N	
Route	Req	UB	14-23	10	A/N	
# Premises	Req	UB	24-29	6	A/N	One input field may be blank if total is unavailable.
# Meters	Req	UB	30-35	6	A/N	One input field may be blank if total is unavailable.
CRLF	Req	UB	36-37	2		

**Table 4.14 Vehicle Detail Record Format' (Optional)**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	HS	1-5	5	A/N	'VHLDT'
Reader ID	Req	HH	6-25	20	A/N	
Vehicle ID	Req	HH	26-45	20	A/N	
Date	Req	HH	46-55	10	NUM	YYYYMMDD
Start Time	Req	HH	56-59	4	NUM	HHMM
End Time	Req	HH	60-63	4	NUM	HHMM

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**Table 4.14 Vehicle Detail Record Format<sup>1</sup> (Optional)**

Column	Use	Source	Offset	Length	Type	Comment
Start Miles	Req	HH	64-73	10	A/N	
End Miles	Req	HH	74-83	10	NUM	
CRLF	Req	HS	84-85	2		

**Table 4.15 Company Trailer Record Format**

Column	Use	Source	Offset	Length	Type	Comment
Record ID	Req	UB	1-5	5	A/N	'COMTR'
Company Code	Req	UB	6-9	4	A/N	
# Routes	Req	UB	10-15	6	A/N	One input field may be blank if total is unavailable
CRLF	Req	UB	16-17	2		